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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

THE ANNUAL MEETING OF SUBSCRIBERS TO THE BRITISH SCHOOL OF ARCHÆOLOGY IN JERUSALEM is announced to take place on Wednesday, January 15, when the Chair will be taken by Professor Stanley A. Cook, D.Litt., F.B.A.

The programme is as follows :—

4.15 p.m. Council Meeting.

4.45 p.m. Business Meeting of Subscribers; Council's Report; Accounts.

5.0 p.m. Open Public Meeting, when the Chairman will give an address entitled 'What Archæology is doing for the Bible.'

Mr. J. W. Crowfoot, C.B.E., M.A., F.S.A., late Director of the School, will describe the 'Excavations at Samaria' and other activities of the School during 1934-35. The address will be illustrated with lantern slides.

We had hoped to be able to publish an authoritative account of the ostraca from Lachish (Tell Duweir) in this issue, but, unfortunately, Professor Torczyner's results have not yet appeared, so that a full discussion of the significance of the letters will have to wait until the April issue of the QUARTERLY STATEMENT.

We learn that excavations are being resumed at Tell el Ajjül, ancient Gaza, by Dr. M. Murray for the British School of Egyptian Archæology, and that Sir Flinders Petrie is digging at Sheykh ez Zuweyid, situated between Rafa and El Arish in north Sinai on the ancient road linking Egypt with Asia.

It is interesting to learn that the mysterious and almost unknown region of south-west Arabia has at last been penetrated by a German explorer, Dr. Hans Helfritz. This adventurous scientist was able to take photos of the ruins of Shabua and of its inscriptions before he was driven out by the Arabs. This ancient realm of the Sabaeans was famous for its wealth, lying as it did on the main route of the incense and spice caravans from south Arabia to the Mediterranean lands. The publication of Dr. Helfritz's results will be eagerly awaited.

The University of Chicago Press and the Cambridge University Press have published a full account of a very interesting ancient monument, the aqueduct of Sennacherib at Jerwan. The reconstruction shows a long low masonry building stretching across the desert, with five pointed arches in the middle where the structure crosses a small river. The arches, of which only the lower parts have survived, constitute the oldest bridge of which remains are extant. The aqueduct was built by Sennacherib as part of Nineveh's water supply, and the king's name appears in the inscriptions on it.

Professor John Garstang's latest campaign at Jericho has already yielded striking discoveries. Two groups of statuettes were found belonging to the early Neolithic period. One of the figures was intact, and represents a man's head, fashioned in unbaked clay, coloured with a pale pinkish wash, with shells for the eyes. Professor Garstang's discoveries have carried back the age of Jericho far into the pre-historic period, and it is possible that Jericho must be regarded as one of the oldest settled communities in Palestine.

The new Palestine Archæological Museum at Jerusalem is now completed, and presents a striking appearance. It is the gift of Mr. John D. Rockefeller, junr., the architect being Mr. Austen Harrison. Several panels have been carved for the cloisters by the sculptor, Mr. Eric Gill. The building stands close to the north-east of the old City wall.

The Council of the British School of Archæology in Jerusalem has appointed Mr. P. L. O. Guy, of Megiddo fame, to be Director of the School for the year ending September 30th, 1936, on the retirement of Mr. J. W. Crowfoot, C.B.E., F.S.A. Mr. Guy was formerly Chief Inspector of Antiquities for the Government of Palestine.

Nuzi, the ancient city which lies near Kirkuk, roughly midway between Mosul and Bagdad on the east of the Tigris, has again provided an important collection of tablets. These include a Sumerian tablet of the time of the third dynasty of Ur, and about 220 old Accadian texts. These later texts reveal an interesting difference between the personal names inscribed on them and the Hurrian names of the occupants of the later strata of the mound on the tablets hitherto found. These, with the discovery of the more ancient name of the place, Gasur, are ample proof that the Hurrians definitely invaded and took over the city.

The second International Congress of Prehistoric and Protohistoric Sciences will be held in Oslo at the beginning of August, this year. Professor J. L. Myres is one of the General Secretaries of the Congress, and the National Secretaries for Great Britain are Professor V. Gordon Childe and Mr. C. F. C. Hawkes of the British Museum. Copies of the pamphlet describing the objects of the Congress, together with enrolment forms, may be obtained from the Bureau of the Congress, Universitetets Oldsaksamling, Oslo. Either of the above-named National Secretaries will be glad to answer any inquiries concerning the Congress.

FORTHCOMING P.E.F. LECTURES:

Wednesday, February 5 at 5.30 p.m.—THE HISTORY OF WRITING. By Professor S. H. Hooke.

Thursday, March 26 at 5 p.m.—HANDICRAFTS: PALESTINE. By Mrs. Crowfoot.

Thursday, April 30 at 5 p.m.—The Hebrew Monarchy and Archæological Discoveries. By J. W. Crowfoot, C.B.E., M.A.

Admission to these lectures in the Fund's lecture room at 2 Hinde Street, Manchester Square, W.1, is free, and open to all interested.

Covenanted Subscriptions. Thanks is expressed to those subscribers who have already signed the form, which is re-issued in this number in the hope that others will follow suit. It involves no additional expense to the subscriber, while the Fund, in 1935, benefited to the extent of about £20 from less than fifty signatures.

The Committee have to acknowledge with thanks the following :—

The Antiquaries' Journal, XV, 4. Review of E. Mackay, The Indus Civilisation.

The Expository Times, Nov.-Dec., 1935. The Date of the Exodus, by Professor T. H. Robinson (Nov.).

The Journal of the Royal Anthropological Institute, LXV., 1935.

Religions, Oct., 1935.

The Scottish Geographical Magazine, Sept.-Nov., 1935.

The Near East and India, Aug.-Sept., 1935. This magazine has now been incorporated in *Great Britain and the East*.

New Judea, Aug.-Nov., 1935.

The American Journal of Philology, LVI. 4. Early Ionian Writing, by Rhys Carpenter.

The American Journal of Semitic Languages and Literature, Jan.-Oct., 1935. The Words for "Year" in Egyptian and Sumerian, by W. F. Albright (Jan.) ; A Proposed New Method of Textual Criticism in the Old Testament, by Paul Ruben (April) ; The Ras Shamra inscriptions and Their Significance for Hebrew Religion, by W. G. Williams (July).

Bulletin of the Metropolitan Museum of Art, New York. The Egyptian Expedition, Sept.-Nov., 1935.

Bulletin of the American Schools of Oriental Research, Sept., 1935.

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The Jewish Quarterly Review, Oct., 1935, XXVI. 2. Aramaica by I. Eitan.

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Syria, XVI. 2-3. Les Chasses de Baal, by C. Virolleaud. La notion d'âme chez les Israélites et les Phéniciens, by R. Dussaud.

Orientalistische Literaturzeitung. Oct.-Dec., 1935. Reviews of C. J. Gadd. The Assyrian Sculptures, by R. Heidenreich ; G. Contenau, La Civilisation des Hittites et des Mitanniens, by J. Sturm (Oct.) ; Hans Schmidt, Die Psalmen, by C. Kuhl ; H. Frankfort, Archæology and the Sumerian Problem, by V. Christian ; E. Auerbach, Wüste und Gelobtes Land, by M. Plessner.

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Denkmäler Palästinas, C. Watzinger, II.

Evidence of Early Man in North America, E. B. Howard.

Portrait Coins of the Herodian Kings, A. Reifenberg.

The Cathedral at Bosra

A Preliminary Report

By J. W. Crowfoot

Bosra, or Bostra as it was called by the Romans, lies about 70 miles south of Damascus. It was an old city when Trajan (in 106 A.D.) made it the capital of the new frontier province of Arabia. For some centuries after this it prospered greatly, becoming probably the most important city in the interior between Damascus and Jerusalem: the Roman theatre is the largest in this area. Bosra was especially famous in the early history of Islam: the place where Mohammad's camel knelt down is still shown and it was the home of the monk Bahira from whom Mohammad is said to have learnt what he knew about Christianity. Legends apart, it was certainly the first large city which the Arabs reached on their conquering march from the desert and it continued to flourish for centuries after the establishment of Islam: four or five tower minarets like black campanili bear witness to this period. Some two or three hundred years ago, however, it was completely deserted, then people gradually returned from the surrounding villages and settled among the ruins; Abdul Hamid's forward policy gave a fillip to the process and it is now a municipality and a terminus of a branch line of the Hegaz railway.

Of the many buildings which cover the site of the ancient city none has been more frequently discussed than the cathedral. Indeed, if one excepts a dozen or so of the most famous early churches, there is hardly any church which has figured so often in the histories and handbooks of early Christian architecture, by reason partly of its intrinsic merits, partly of its possible relation to other still greater buildings, the Dome of the Rock in particular.

At the present day the building is in a pitiable state, and even

the ground plan can only be recovered from the records of earlier visitors. The main body of the church, the *naos*, consisted of a circle some 36 metres in diameter inscribed in a square with horseshoe exedrae in each corner and a series of niches in the walls both outside and inside. At the east end there were five chambers, a chancel in the middle which ended in a polygonal apse, wide passage rooms on either side of the chancel, and apsidal chapels or sacristies beyond them. The lower half of the chapel or sacristy at the north east corner is now blocked up: the other four chambers, three of them still partly roofed with the original vaulting, are used for storing chopped straw. The triple doorways which opened into the *naos* on the north, south and west sides have disappeared almost completely. The long north wall is hidden by houses which have been built against it. The exedra in the north west corner is the village Post and Telegraph Office: the corresponding exedra at the south west corner is immured in a modern house and only a portion of the south wall is visible from a private courtyard. The latest and most cruel disfigurement of the outer shell is a large concrete water tank which was erected recently by the Municipality of Bosra above the roof of the chapel in the south east corner. Inside the *naos* there are a few modern walls and out-buildings, but most of the floor is buried four or five metres deep beneath heaps of refuse and debris.

According to an inscription over the central door at the west end, which has disappeared in the last seventy years, it was built in 512-513 A.D. when Julianus was Archbishop of Bosra, and it was dedicated to the Saints Sergius, Bacchus and Leontius.[1] Down to about 1880 a large part of the shell including much of the clear-story was still standing. In 1853 M. de Vogüé[2] made a sketch of the outside as it then appeared and the general accuracy of this sketch is confirmed by a photograph taken by an American expedition in 1875 (Plate I.). His ground plan is open to more criticism in detail but the main features were correctly

1. Brünnow and Domaszewski.—Die Provincia Arabia, 1909, vol. III. p. 30, with reference to earlier literature.

2. Vogüé.—Syrie Centrale, 1865—pp. 63 f.

rendered—the circle in a square with exedrae in the corners and the five chambers at the east end. The wall plan is interesting, but the question which has divided archæologists most is the problem how the interior was roofed. At some date which we cannot determine, the roof, whatever it was, collapsed, and a small basilica reaching only as far as the middle of the original nave was built in front of the chancel on a somewhat higher level, the ground between the new church and the outer walls being used as a cemetery. This basilica was also planned by M. de Vogüé, but of the original roof supports of the cathedral no trace was visible.

On the analogy of the church of St. George at Ezra, which dates from the same decade and is still standing, M. de Vogüé conjectured that there was an inner octagon with a dome measuring 19 metres in diameter over the middle of the church.

In 1898 Prof. Brünnow visited Bosra. He found that much of the walls, including the whole of the clear-story, had been pulled down for building materials, and that the middle of the cathedral was buried under a growing heap of rubbish. He suggested some modification in Vogüé's reconstruction, but neither of the two reconstructions rested on anything but conjecture, as was pointed out by Holtzinger in his textbook on the history of architecture.[1]

Matters stood thus until Mr. H. C. Butler visited Bosra in 1909.[2] On this occasion he found a hole recently dug some 5 metres in front of the north wall of the chancel, and in this hole he said that he saw the foundations and lower courses of a composite pier and the fragment of a cipollino column. On the basis of this find he prepared a new plan, sections and reconstructions. The pier was evidently designed to form one angle of an octagon, the cipollino fragment suggested that there were intermediate marble columns between the eight composite piers of his octagon, and the centre he roofed with a sugar-loaf dome

1. Holtzinger.—Handbuch der Architektur, 1909. Part II, vol. III. Section 1, pp. 142, 3.

2. Butler.—Princeton Expedition, Ancient Architecture in Syria, 1914, pp. 28 1. f.

like one which formerly existed at Ezra. His dome measured some 26 metres across and he declared that when it was erected the Bosra Cathedral was one of the largest domed churches in the world. Butler's reconstruction is very ugly and is open to obvious technical objections, but the account of his discovery is so circumstantial that it seemed to have finally settled the existence, size, position and style of the supporting octagon, and it has been accepted by all later writers who have discussed the church.

The piers on which Butler's dome was supposed to rest were only 80 centimetres thick, and his reconstruction was reasonably criticised by Prof. Herzfeld[1] and Mr. Creswell[2] on the ground that a dome measuring 26 metres across could not have stood on such slender supports : the fact that it did subsequently collapse does not warrant us believing that the builders ever thought it could. Both these writers accordingly argued that at Bosra, as in the Dome of the Rock, there must have been a second, inner, ring of supports carrying a much smaller dome. It was to test the validity of their hypotheses, for they pretended to be nothing more, and largely at Mr. Creswell's instance, that the writer decided to make soundings inside the church. The French authorities were most amiable and, in the company of Mr. Colt and two other members of the Esbeita Expedition, Mr. Way and Mr. Baly, Mrs. Crowfoot and I spent some ten days there in May, 1934.

The results of this expedition were disappointing. We made soundings at the west end of the church and in the south east quadrant, and we uncovered the south wall of the later basilica. In the course of this work we ought to have come upon four of Butler's piers, but not a trace of them was visible, and as the lower strata were packed with tombs built one above the other, we concluded that the piers had been removed when the place

1. Herzfeld.—Mshattâ, Hīra und Bâdiya, Jahrb. d. Preussischen Kunstsammlungen XLII, pp. 119-121.

2. Creswell.—The origin of the plan of the Dome of the Rock, B.S.A.J. Supplementary Papers, 2, 1924, pp. 21 f. and Early Muslim Architecture I pp. 72-74.

was turned into a cemetery. The only discovery resembling a roof support was a square base set on two large paving stones belonging to the original floor, but it was placed so eccentrically in relation to the two rings for which we were looking that we could make nothing of it.

A second expedition in the company of Mr. Detweiler of the American School in Jerusalem and Miss Diana Crowfoot, made last March, was attended with happier results. The north-east quadrant was the area selected for examination this time. At first it looked as if our researches were to be again fruitless. We failed to find either of the piers which Butler marked on the north-east side of his octagon, although one of them was the pier he claimed to have seen and measured in the north wall of the later church. The north wall was there and it was plain also that the ground had been disturbed in the way he describes, but there was no pier in the place which he indicated (see Plate II). It is evident that he made some mistake when working up his notes, and it followed that there was no more basis in fact for the later reconstructions of the church by Herzfeld and Creswell than there had been for those made before his visit.

It was not until we drew near the west end of the north wall of the later church that our efforts were rewarded. Here we uncovered three courses of a ⌐ shaped pier of excellent construction: the bottom row was a spreading foundation course, the middle one rose to the level of the original cathedral floor, the top one rose above it (Plates III. and IV.). On the inside of the angle each arm of the pier measured 1·40 metres long, and each arm was 85 centimetres across. Obviously this pier had been one of the corner supports of a central dome or lantern carried on four arches: the dome or lantern would have measured about 12·4 metres in diameter, and three or four voussoirs from an arch with a span of some 12 metres were found near by. The dome or lantern therefore was about the same size as the domes of Herzfeld and Creswell, but it was carried on a central square.

A second discovery showed that originally semi-circular colonnades stood on each side of this square. The evidence for

this was a line of stones running to the east in a curve from the foundational courses of the pier. This curving line ran under the wall of the later church and we followed it as far as the medial line of the cathedral: in two places on this segment it was interrupted by the pedestals of columns, and one pedestal (which had been re-used in the later church to carry a column) was still in position. On the north side of the angle pier one stone of a similar curving line was found still in position, and when the details were plotted on our plan, it was seen that the base on the south side of the church which had puzzled us so much in 1934 was part of a similar colonnade on that side (see Plan).

The arrangement of the internal supports of the roof which has been the subject of so much ingenious speculation is therefore now known: they were arranged in the form of a great quatrefoil composed of a central square with semi-circular colonnades projecting from each face.

The plan thus reconstructed appears to be a rare if not unique combination of two more familiar elements. There are several examples of a circle or octagon inscribed in a rectangle with exedrae and niches like those in the cathedral: a room in the baths near the theatre at Bosra offers an earlier instance on a small scale. Similarly the way in which the internals supports are grouped is not difficult to parallel; somewhat similar arrangement may be seen in the church at Athens in Hadrian's Stoa,[1] in the church of St. Lorenzo at Milan, and in one of the churches at Rusafa, but in such buildings the line of the outer walls conforms usually to the internal arrangement. We do not recall any example of a quatrefoil plan of this type inside a rectangular building, though there is an example of a triconchos in a square in the adjoining ecclesiastical residence which may well have been designed by the same architect.[2]

It remains to indicate briefly the position which we now assign to the cathedral at Bosra in the history of architecture.

The cathedral at Bosra was built in 512-513, St. George's at

1. Sisson, in Papers of the British School at Rome. 1929. pp. 70-71
2. Butler, i, p. 283. xi, 248.

PHOTOGRAPH OF BOSRA CATHEDRAL FROM THE SOUTH-WEST TAKEN FOR THE AMERICAN PALESTINE EXPLORATION FUND IN 1875.

1. North Wall of later basilica seen from the South-West at point where Butler's Pier should have been.

2. The same Wall from the North-West with two Columns of the Basilica in position.

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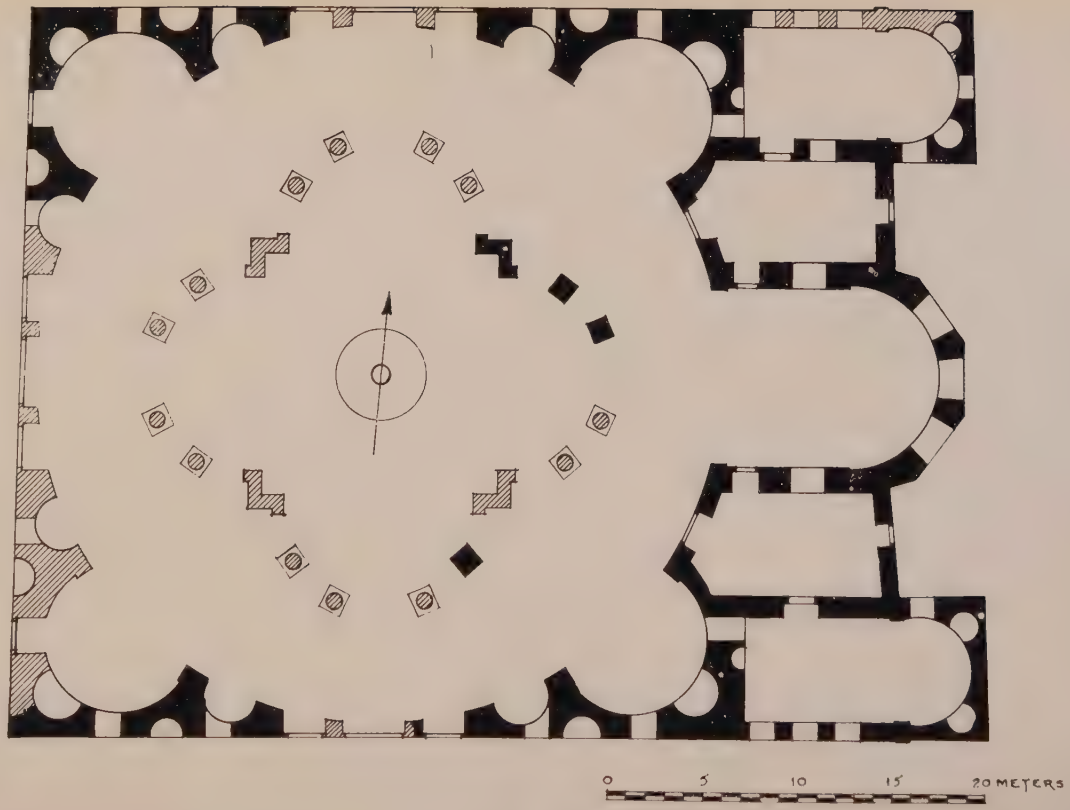
1. View of the North-east support of the original roof over the centre of the Cathedral, looking West.

2. View of the North wall of the later Basilica, with the foundations of the original roof supports, both North and South of it, and the Pedestal of a Column still in position.

BOSRA CATHEDRAL



PLAN BY A. H. DETWEILER, 1935

Ezra in 514, the church of St. John the Baptist at Jerash[1] (which was a reduced edition of the Bosra Cathedral, including the central square but without the semi-circular colonnades) was built in 532. These "central" Syrian churches are therefore very close in date to the domed churches in Constantinople and Ravenna which are the glory of Justinian's reign, but structurally they are poles apart. In Justinian's churches the thrust of the dome is cunningly distributed between the central piers and the outer walls: in all the Syrian churches the thrust of the dome or lantern was carried wholly on the central supports. The Syrian method is the old classical method and it continued in force for a long time: it is the principle on which the Dome of the Rock was built at the end of the next century.[2] In most parts of Asia Minor similarly, much nearer to the capital, builders continued for centuries to ignore the new formulæ discovered by the genius of Justinian's architects.[3] And the carved decoration tells the same tale: while new capitals of exquisite beauty were being devised in Constantinople, the builders at Bosra, Jerash and Jerusalem, were content to re-use old classical material. The Syrian churches are very interesting, but one turns from them with a feeling of increased admiration for the European masterpieces of the first Byzantine period.

1. Crowfoot.—Churches at Jerash, B.S.A.J. Supplementary Papers 3. 1931, p. 21.

2. Richmond.—The Dome of the Rock in Jerusalem, 1924. Fig. 2.

3. Guyer.—Les monuments chrétiens en Asie Mineure, in Atti del III. Congresso internazionale di archeologia christiana, 1934, p. 448.

The Nabataean Ware of Sbaita

By Grace M. Crowfoot

In his recently published "Note sur Subaita"[1] Père Abel tells of his discovery that the town in the Negeb mentioned in the fifth century story of S. Nilus, usually under the name of Souka, and suggested by him previously on textual and other grounds to be Soubaita[2], is actually called Soubaita in a tenth-eleventh century MS. of the story on a parchment in the Library of the Greek Patriarchate, so that this identification is now proved beyond a doubt.

The story, well-known but so delightful that one cannot resist recalling it, tells how Theodulus, disciple of Nilus, was stolen away by raiding Arabs and devoted by them as a sacrifice to the Morning Star. But the raiders overslept, the Star set before they rose, and they took it as a sign that the victim was inacceptable to the goddess. After taking him with them on their wanderings through Sinai to the Negeb, they brought him to the town—Souka=Soubaita—to be sold as a slave. This is all most graphically told by the poor boy himself; how he stood outside the town, with a naked sword at his neck, the Arabs declaring that "if no one would buy me they would cut off my head then and there. So I prayed with both my hands those who came to the sale to pay what the barbarians asked, and not to be stingy over the price of human blood, assuring them that I would serve with zeal him who should buy me, and that even after I should have repaid what he spent for me." Touched by his prayers, a townsman did buy him, to re-sell him later to the Bishop of Elousa (Khalasa) who freed him and restored him to S. Nilus.

1. Abel. Note sur Subaita. J.P.O.S. Vol. 15, 1—2, p. 10, 1935. Sbaita is a Romano-Byzantine town, now being excavated by the Colt Expedition of the B.S.A.J. see P.E.F.Q.S., Oct. 1935. S'baita. Colin Baly. The site is also often called Esbaita, a pronunciation probably influenced by the use of the article.

2. Abel. Une mention Byzantine de Subaita. Byzantion, t.l. p. 57.

This story had already a peculiar interest for the investigators of Sbaita, as it suggested an earlier occupation than that of the churches and houses with which they were principally concerned, and which are dated, as far as can be at present ascertained, to about the sixth century A.D. and later. There had, indeed, been surface finds, a Nabataean inscription,[1] and sherds of Nabataean ware, but nothing below the ground. In this year, 1935, the identification of the site suggested before by Père Abel has been confirmed by this newly-found MS., and further proofs of the earlier occupation have been given by the deposits mentioned by Mr. Baly,[2] which are now discussed here. Père Abel, referring to these discoveries in his note says: "Subaita doit probablement son nom et son origine aux Nabatéens."

The following account of the new discovery is taken from notes supplied by Mr. Colt.

Attention was first drawn to the find spot of the most important deposit by sherds both of Nabataean ware and Terra Sigillata lying on the surface of a slope to the south of the town. On examination a dump heap was found 30 m. long by 10 m. wide. Part of this area was most carefully worked by Mr. Baly in the following way. Four trenches were dug parallel along the face of the slope so that finally an area 8·50 × 4·70 m. was cleared down to the bottom of the deposit. This was dug in layers of 15 cm., and the depths found to vary from ·60 to ·80 m. Just beyond this place another trench 1·60 m. wide was dug up the face of the slope for a distance of 8·60 m. This too, was worked in 15 cm. layers, and was found to vary in depth from 1·30 to less than ·40 m. This variation is caused by the position of the dump on a gentle slope with horizontal strata of limestone protruding at various levels, thereby causing the refuse to gather deeper in some places. Mr. Colt concludes: "When the pottery from the various levels was examined, it was found that the same types occurred in all, and while there was a certain

1. Rev. bib. 1905. p. 257.

2. Colin Baly. Op. cit. p. 172.

amount of stratification, layers of burning being visible, the latter has little or no significance. Therefore it would appear that either this particular spot was used as a dump when some nearby area was cleared out, or that it was a refuse dump only over a very limited period. This is further emphasised by the finding on the surface of the same kind of sherds as at the bottom *i.e.*, of Nabataean and Terra Sigillata."

This was the stage reached just before the expedition closed down its season's work, and there being no further reason for keeping the material from the levels separate, it was kindly handed over to me for study by Mr. Colt, in the hope that though the pottery was mostly broken into very small pieces, some restoration of types might be possible. With this I was also given some material from a second deposit, also containing Nabataean ware, but unstratified and known to contain a mixture of sherds from various periods; it was found while examining a large building to the south of the first deposit.

Deposit 1 contained Nabataean ware, both painted and plain, Terra Sigillata, Household ware, some of it ribbed, lamps (Roman), a very little glass and two coins.

Deposit 2 contained Nabataean ware, Terra Sigillata, Household ware and lamps similar to those in Deposit 1., as well as lamps of later types, ware of the Byzantine to Arab period, a much larger proportion of glass than in Deposit 1, and forty-four coins.

As Nabataean ware is still not very well known, the following general note on the subject may be useful before proceeding to the discussion of that found at Sbaita.

Nabataean Ware.—The Nabataeans, who, according to Diodorus[1], in the fourth century B.C. though traders were still nomads, and "eschewed agriculture, fixed houses, and the use of wine," became so rapidly civilised that under the Roman peace they were as famous for their agriculture as their trading. They have left us, as well as the magnificent architecture of Petra, another true memorial of a sedentary and cultured race, very fine pottery.

1. Diodorus. (xiv. 94 seq.)

This ware was first identified and described by Mr. and Mrs. Horsfield in 1930.[1] They found it at Petra on the surface on all parts of the site, and in deposits at the Great High Place, and in the City Dump, the latter with objects dating from 150 B.C. to 100 A.D. Subsequently, similar ware has been found by them, and also by Dr. Glueck[2] in many parts of Trans-Jordan, as far as Bayir Wells, which has been called the "easternmost outpost of the Nabataeans." Dr. Glueck assigns this ware "to the period between the second century B.C. and the first century A.D." A few sherds were found by Mr. Colt at Bostra (Hauran) and on a *tell* near Meshennef, in Jebel Druz; in Southern Palestine many fragments have been found at el'Auja, el Khalasa, Kurnub, Tell es Sabi'[3], one sherd has been found at Tell Ajjul[4], and another at Tell Far'a[5]. With those of Sbaita, we see that this ware has now been found on almost all the Nabataean trade routes.

Description.

Ware.—Nabataean ware is usually brick red, sometimes pinkish, and occasionally becoming brownish in the coarser pieces. Sometimes, through some fault in baking, the surface is covered in part by a grey film, sometimes the ware has a grey or greenish core, but in general the colour is pure, the surface smooth, and the clay well levigated and baked red right through. It is usually thin, commonly, the thickness varies between 3 mm. and 1 mm., but often it really deserves the term "egg shell" given to it by its first discoverers.

Forms.—Bowls, dishes, saucers, cups and jugs have been noted, the commonest being the shallow bowls. Being so thin,

1. Horsfield and Conway, Historical and Topographical Notes on Edom. Geog. Journal, 66. 1930. pp. 375, 386.

2. Glueck BASOR, Bulletin 50, and A.A.S.O.R. Offprint Series 3: "Exploration in Eastern Palestine." 1. 1934.

3. Iliffe. Nabataean Pottery from the Negeb. Q.D.A.P. Vol. 3 No. 3, page 132.

4. Unpublished.

5. Starkey and Harding, Beth Pelet. Pl. 64, No. 60.

the ware is very fragile, and is usually found in so fragmentary a state that except for two bowl types, it has not been hitherto possible even to make restoration drawings of complete forms ; they appear all to have been small and of a certain elegance—the jug handles, for instance, are so long and narrow that they have quite a Hellenistic air.

Rouletting.—Some of the deeper bowls and the jugs are decorated by rouletting outside, usually in several rows of very fine nicking, and certain small bowl or cup shapes are rouletted round the base.

Painting.—Much of the ware is painted with patterns in red, sometimes varying to a brownish and sometimes to a mauve hue, usually on the inside of the bowls and dishes ; the designs include palmettes, floral designs, vine trails, cones and dots on a background of fine hatched lines.

Although the ware is so fragile, and survives only in pieces, the colour and painted decoration are so characteristic, that even the tiniest fragment can be recognised. There are few visitors to Petra who do not carry away a memory—or even a few sherds —of this most attractive ware.

The resemblance between the Nabataean ware of Sbaita and that of Petra is most striking. I noted in the fragments from both places the same vivid colour and general excellence of the ware, and the same occasional green core streak, or grey surface film. The forms show a great similarity both in the fine painted pieces and the plain coarser ware, and there are the same tricks of decoration such as the rouletting of the sides and under the bases of bowls. The designs on the painted fragments at Sbaita can all be parallelled at Petra, and some sherds illustrating this resemblance are figured on Pl. II. No. 5. But I found in the Sbaita deposits none of the finest ware of Petra, the pinkish " egg shell " bowls and cups with decoration of delicate vine trails, free plant forms, and fine feathering, such as the fragments shown in the lower row on this plate ; whether this is simply a question of quality, the finest ware being absent in this particular deposit, or whether the finest ware is of

another and possibly earlier date, cannot be certain at present.

The Nabataean Ware of Sbaita. Painted.—Nearly all the painted fragments at Sbaita appear to come from bowls of the same shape, shallow, with rounded base and small upturned rim (Pl. I.); the rims varied between 20 cm. and 24 cm. in diameter, and there was one of 26 cm. This seems to have been a common type at Petra, and there is actually a complete example in the Ethnological Museum at Cambridge, though rather a small one, and not of the finest quality; Dr. Glueck figures a rim from Bayir Wells which might have belonged to this type.[1]

Not only do the Sbaita bowls seem to have been nearly all of one shape, but they seem to have had the same design as well. The restoration of this design, the work of Mr. Avi Gad, shown on Pl. I, was rendered possible by the fortunate survival of one fairly large piece in Deposit 2 (Pl. II. No. 1), and by the numerous pieces in Deposit 1, showing parts of the same pattern. In this design palmettes alternate with double cones superimposed on lines diagonally hatched, and diversified by groups of dots; sometimes there is a line of tiny dots below the rim. The palmettes always had their tops towards the centre of the bowl which was sometimes left plain, sometimes filled with a group of dots. This group, as also other groups used to fill empty spaces in the design are often triangular, suggesting descent from a bunch of grapes.

Among the great variety of designs seen on fragments from Petra, this Sbaita design or something very like it certainly occurs, there are palmettes arranged in the same way, and the strange double cones are also there, in fact their shape has led some to call them "the mountains of Petra," the cones also occur on fragments from Bayir Wells.[2]

Besides the numerous fragments showing one element or other from this design, there were a few which must have formed part of some variant form, *i.e.*, the sherd with cross hatching and double row of dots on Pl. II. No. 5.

1. Nelson Glueck: "Exploration in Eastern Palestine," A.A.S.O.R. 1943. Plate 21.

2. Nelson Glueck: B.A.S.O.R. Bulletin 50, p. 8.

Three fragments were found which show painting on both sides. Two of these show parts of patterns, but the third, figured on Pl. II. No. 2, has a pattern on one side and Greek letters on the other, painted in the same red as the pattern. Unfortunately, the fragment is too small to make any sense, but the form of the letters can hardly be earlier than the second century A.D. This use of Greek, not Nabataean, letters on the ware is significant, and may indicate that the ware is later than has been supposed, a conclusion which is suggested also by the coins found in the same context. (See below.)

Painted pottery was in use in Edom for centuries before the Nabataean conquest, but no affinity can be traced between these earlier wares and that with which we are concerned. The patterns on Nabataean ware seem to us certainly to have been derived from the Hellenistic designs which are to be seen in Alexandria, vine trails, floral patterns and palmettes, but the local potters made a very free and original use of their models. The application of the pattern to the inside of the bowls is also a feature which can be parallelled in late Hellenistic wares,[1] but again the resemblance is not at all close. This pottery seems to us therefore to be a parallel phenomenon to the somewhat later Meroitic fabrics found in Nubia, which show on equally fine ware a free adaptation of Hellenistic and Egyptian motifs.[2]

Plain Nabataean.—There was a good deal of plain ware in Deposit 1. This was in general coarser than the painted ware, though some pieces were thin and of an even more vivid red. The shapes were different from those of the painted ware, the commonest form being a bowl with a small upturned rim, and either a flat or a small ring base, but no restoration was possible, and the drawing on Pl. IV. No. 6, is made with the help of part of a similar bowl from Petra. There are three complete bowls from

1. *e.g.* "West Slope" Plates of the 2nd.-1st. cent. B.C. Homer Thompson. Two Centuries of Hellenistic Pottery. Hesperia, vol. iii. No. 4. 1934. pp. 400, 401.

2. Woolley and McIver. Karanog, vol. iv.

Petra very near this type in the Ethnological Museum at Cambridge.

Some of the plain ware had rouletting on the outside of bowl and jug pieces. Two of the bowl forms, one a deep bowl with rouletting below a ring base (Pl. III. No. 2)[1] and the other bowl with a rouletted sides (Pl. III. No. 1),[2] are similar to fragments found at Petra, and in other places in Trans-Jordan. Fragments with spiral ribbing on the base (Pl. III. No. 4) are also found at Petra. In no case could any restoration be made.

Terra Sigillata.—It has been observed that where surface finds of Nabataean ware are seen, they are often accompanied by sherds of Sigillata, as they are at Sbaita. The ware is all of the Eastern Mediterranean type, that is, a buff ware with a red glaze sometimes brilliant, but inclined to wear badly. It is possible here to distinguish two kinds.

(*a*) Pale buff ware, often nearly cream colour, with a glossy glaze, bright in tone and sometimes having orange patches in it.

(*b*) Dark buff ware, red glaze darker than that of (*a*), more uniform in tone, and with a dull surface.

Rouletting was found only on fragments from closed vessels, probably jugs. The variety was extraordinary, as can be seen on (Pl. III. No. 3) from simple triangular nicks to long thin "diamond strokes" sometimes so superposed as to be nearing the pattern rouletting seen on bowls of the third century A.D.[3] The glaze of these fragments was usually that of (*a*), but on some the glaze was so thin and pale in colour that it approached more to what some writers call a polish.

Barbotine. One fragment was found with a bud and part of a leaf in barbotine.

No complete shapes were found and the fragments were mostly very small. It was found possible to restore five

1. Nelson Glueck : A.A.S.O.R. 1934. Pl. 27. No. 8.

2. Nelson Glueck : op. cit. Pl. 28. No. 7.

3. See P.E.F. Annual IV. 1925. Plate xx. Fig. 5 , V. 1927. Plate xiii. Fig. 17.

shapes, two dish types, a plate, cup and jug, all shown on (Pl. IV.).

Dishes. Type 1. (Pl. IV. No. 3)—Dish with flat stepped base and rim flaring out. This type was always in ware (*a*) ; there were eight or nine examples. Many rim fragments ribbed inside probably came from similar dishes, a few of them were in ware (*b*). Two dishes very near to Type 1, were found at Samaria, one near the Roman Wall, unstratified, the other in a group of the Augustan period.

Type 2. (Pl. IV. No. 2)—Dish with ring base, angle on side near base, and a rim flaring but turning in at the top. This type was found in both wares, the number being estimated at eight or nine examples. One dish somewhat like this, but deeper, was found at Samaria in the shrine near the City Gate, a building undated but possibly of the second century A.D., and fragments of similar dishes were found with the lamp hoard of Jerash, believed to be of the first-second centuries A.D.

Plate. (Pl. IV. No. 1)—Fragments from four of these were found in ware (*b*). Plain specimens of this type may possibly be as early as first century B.C., but two of these rims have mouldings and should be later.

Cup. (Pl. IV. No. 5)—with ring base and a high plain rim. Fragments of ten were found, all in ware (*a*). This type may be classed under Ritterling 9, but is not identical with any published form we have yet seen.

Jug. (Pl. IV. No. 4)—Many fragments appeared to come from jugs similar to or near this type. They were in a buff ware with a good light red uniform glaze. The bodies were ovoid, and the handles usually had one groove, but sometimes two. Dr. Fisher considers that this type of jug may have a range of from B.C. 50 to A.D. 150. Some pieces of similar jugs were found with the previously mentioned Jerash hoard of lamps and figurines, one of which had rouletting on the body. Jugs of this type have been found at Samaria, one in an Augustan context, others may be earlier.[1]

1. Reisner. Samaria Vol. 1. Fig. 185. 14a. Late Hellenistic vessels.

Household Ware. Jars.—The common ware in this deposit was almost as badly smashed up as the fine, and it was impossible to restore any jar shapes. One rim with a handle curiously pinched up, probably between the finger and thumb of the potter, was in a good buff ware ; a body fragment showed traces of Greek letters in red paint. Some other rims are shown on Pl. IV. No. 9. Nos. *a—f* are in reddish ware except (*b*), which is in buff ware with traces of a purplish red wash. Nos. (*a*) and (*e*) have that curious film, pinkish or grey, on parts of the surface which has already been mentioned as a characteristic of some of the fine Nabataean ware.

Cooking Pots.—Many fragments were found, indicating at least twenty-one examples with two handles as shown on Pl. IV. No. 8, some were ribbed and some must have been plain or nearly so, the bases were problably all rounded. The ware is thin, a good red, with shining specks on it. These two-handled cooking pots with more or less ribbing are common enough in Palestine from the Augustan period onwards, the only peculiarities here are the small size and thinness of some of the pots, the ware, brighter than the usual brown reds, and the rims, here grooved at the top and often rolled over, inside and out.

Casseroles. (Pl. IV. No. 7)—Casserole with two horizontal handles and lid with small pierced knob. Fragments of perhaps six examples were found, in similar ware to the cooking pots. These casseroles no doubt descend from the Hellenistic casseroles of the second-first centuries B.C., such as have been found in Athens[1] and at Samaria (unpublished), but the Sbaita casseroles already have the small sharply cut rims characteristic of Byzantine forms[2]; they have no striking peculiarity, but they are rather smaller, shallower and thinner than usual, and the handles do not rise high above the rim. Similar casseroles but larger have been found at Samaria of the late Roman period, some

1. Homer Thompson. Two Centuries of Hellenistic Pottery, Hesperia. Vol. 3. No. 4, 1934. Fig. 121, p. 467.

2. FitzGerald. Bethshan. 1921, 1923. Pl. 31. Fig. 12.

certainly of the fourth century A.D., others possibly a little earlier.

Lamps. (Pl. III. No. 5.)—Fragments of more than twenty lamps were found all broken very small. They were all of the same class of Roman lamp, with flattened rounded body, small nozzle and no handle, the rim decorated with ovules, degraded volutes etc., and the centre being sunk, sometimes plain with a small filling hole, as can be seen in the illustration on one fragment, and sometimes decorated. The ware is in some pieces buff with a poor red glaze or wash, in others grey with a greenish glaze, usually much worn. These lamps are very common in Palestine, and are usually considered to be of the first-third centuries A.D., those with plain centres possibly being earlier than the decorated ones. Many have been found at Samaria[1] and some with the Jerash lamp hoard already mentioned.

Glass.—A very few fragments, apparently from small flasks, some almost colourless, all thin and much decayed.

Coins.—There were two coins, one of Herod Agrippa I. (A.D. 42/1) and one of Ascalon of the reign of Antoninus Pius (A.D. 152/3). (B.M.C. Pal. p. 130. No. 195.)

The Dating of Deposit 1.—It has already been stated that careful examination could show no difference in the pottery from different parts of this dump, and that either the deposit had been moved there from some other place, or had been a refuse dump over only a limited period. If the latter, then the pottery might be homogeneous and characteristic of one period only; if the former, it could hardly have escaped some mixture. As there was no real stratification, only examination of the material could give any information on this point. The evidence from the coins, the lamps and the Terra Sigillata all goes to show that the deposit could hardly have been laid down earlier than the end of the second century A.D., and that it may reasonably be regarded as homogeneous.

Exception might perhaps be taken to assigning so early a date for the household ware, as it much resembles the late

1. Reisner. Samaria. Vol. 1. p. 323. Roman Lamps.

Byzantine ware found in other parts of the site, but it would seem absurd to suggest that all the fine ware and lamps in the deposit were of one date, and all the coarse ware of another. The two-handled cooking pots are common earlier, but I know of no example of the particular type of casserole earlier than the fourth century A.D. It has, however, a long history behind it in the Hellenistic casseroles with lids, and it is quite possible that it may have already evolved into the form shown on Pl. IV. No. 7 by the second century. There is still a good deal of unexcavated material in this deposit, and the completion of the work may be hoped to make the dating more certain. Provisionally then, it may be regarded as homogeneous, and as laid down at the end of the second century A.D.

Deposit 2.—Deposit 2, on the other hand, is thoroughly mixed. It gives an epitome of the history of Sbaita, containing specimens from Nabataean and Sigillata to Byzantine and Arab. The most interesting pieces were : A fragment of a lamp with wheat-ear decoration resembling one of those from the Roman cisterns of Beit Nattif[1] probably of the third-fourth centuries A.D.

A fragment of a common type of Byzantine lamp, in buff ware with a red wash decorated with a wreath of leaves, also probably about the third-fourth centuries A.D. Similar lamps have been found at Gezer[2], Samaria[3], Beisan[4], at Beit Nattif[5], and many other places in Palestine.

Several fragments of lamps with high tops, prototypes of Arab mediæval lamps.[6]

Fragments of Byzantine red plates with stamped designs.

1. D. C. Baramki. Two Roman Cisterns at Beit Nattif. Pl. 7. Fig. 5.

2. MacAlister. Gezer. Vol. III. Pl. 92; 11, 12.

3. Unpublished.

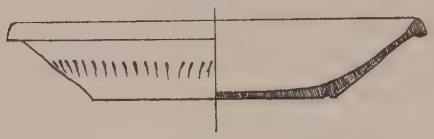
4. FitzGerald. Beth Shan Excavations 1921-1923. Vol. 3. Pl. 36. Fig. 10.

5. D. C. Baramki. *op cit.* Plate 6. Fig. 10.

6. FitzGerald. *op cit.* Plate 36. Fig. 25.

Remains of several dishes in red ware rouletted outside. (See fig. 1 in text) ; somewhat similar dishes were found at Samaria in a Roman house of the fourth century A.D.

Fig. 1.



Dish in red ware, rouletted. Deposit 2. Sbaita.

Two fragments from a bowl with wavy band incised below the rim, similar to ware found at Ophel of the sixth century A.D. or later.[1]

One small fragment of the late stamped Arab ware similar to that published by Mr. Baly.[2]

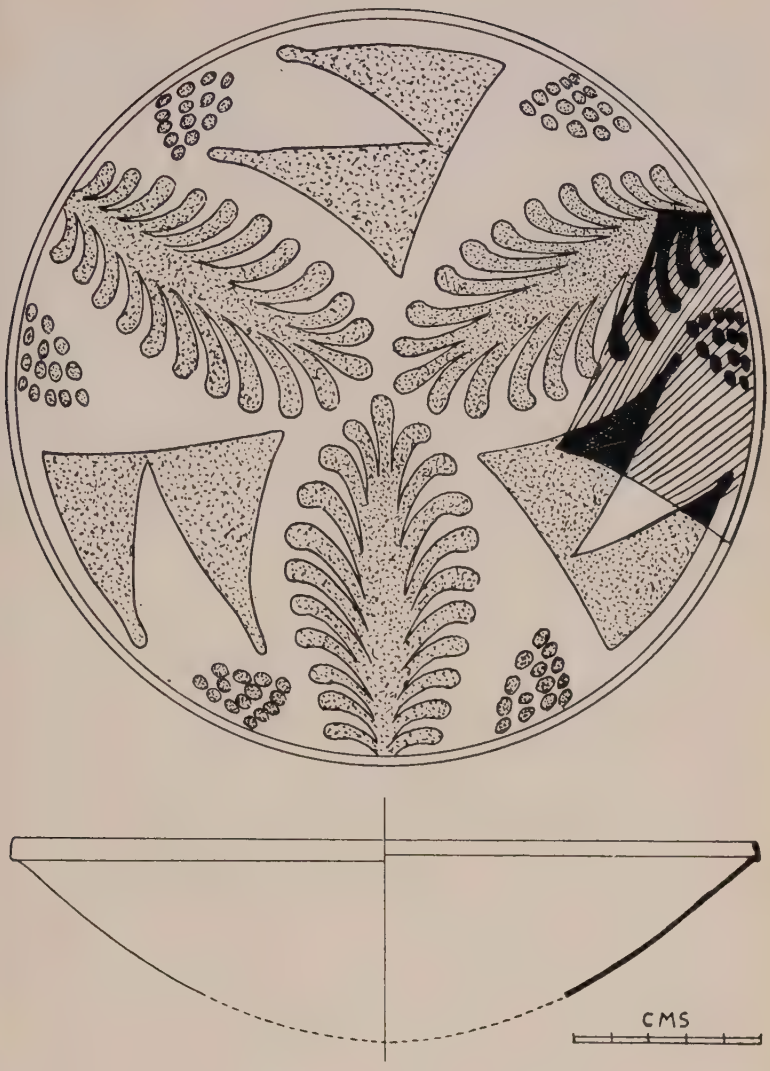
The glass included fragments of church lamps of the stemmed bowl type popular in the fifth-sixth centuries A.D.

Coins.—The coins were forty-four in number, among them were one of Constantius II. 326-361 A.D. ; one of Theodosius II. (408-450)[3] ; five Late Roman, among them coins possibly of Constans and Jovian ; eleven fourth-fifth century, including one probably of Marcian 450 A.D., fourteen unintelligible but probably of about the same date, and two late Byzantine, one of which Sir Flinders Petrie identifies as an Axumite coin of the time of Justinian. The late Mr. C. Lambert, of the Palestine Museum, kindly examined this whole find and wrote : " The coins seem mainly late fourth-fifth centuries A.D. Their chief interest seems to be the way in which some specimens have been deliberately cut into halves or quarters indicating a shortage of currency or peculiar conditions under which the metal itself

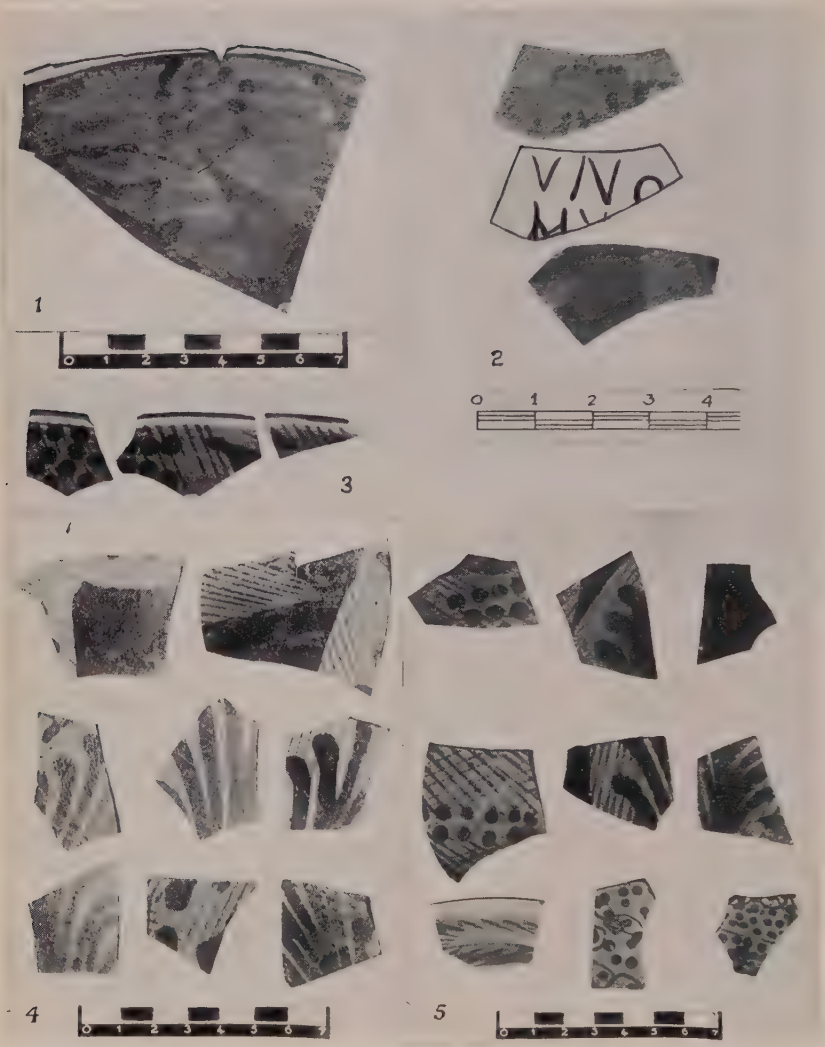
1. P.E.F. Annual, 1927. Pl. 15. Fig. 10 ; also Beth Shan Excavations Vol. 3. Pl. 36. Fig. 16.

2. Colin Baly. Op. cit. Pl. 6. Fig. 2.

3. Sir Flinders Petrie considers that this coin is more likely to be of Theodosius II., than of Theodosius I., because of the *youth* of the figure. Theodosius I. was a General before he became Emperor.

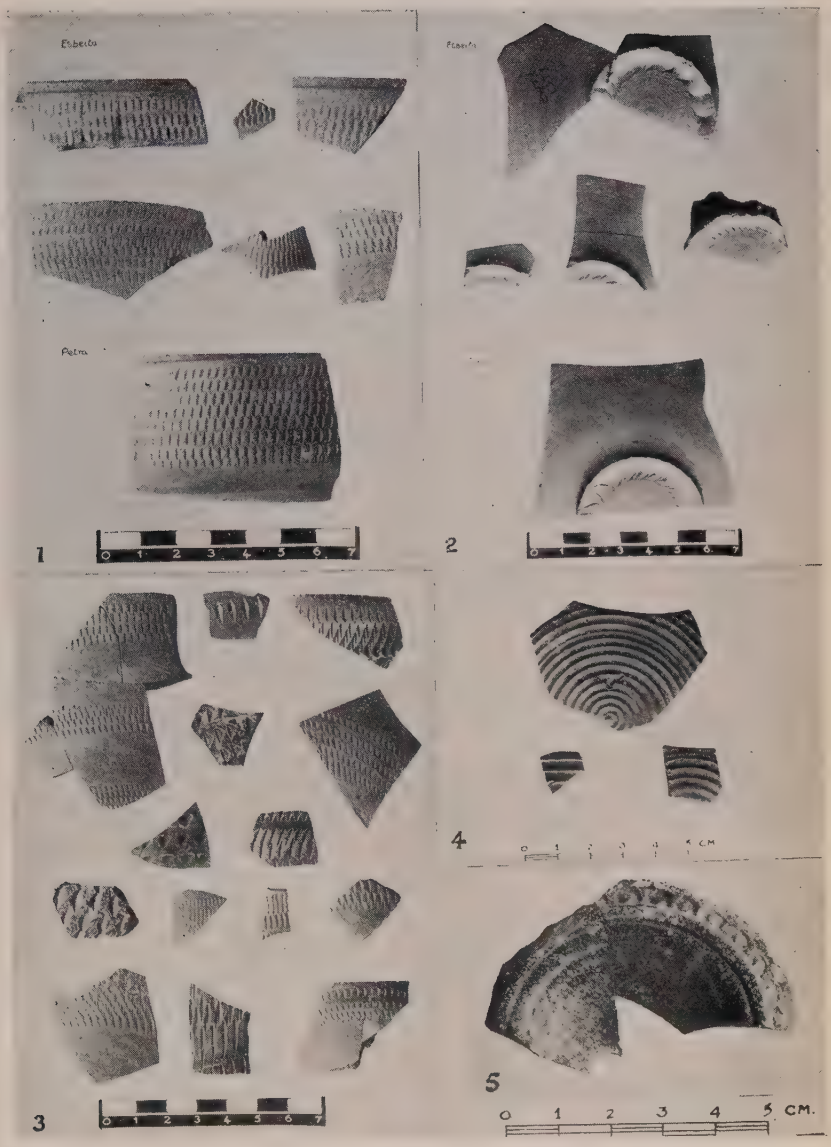


RESTORATION OF NABATAEAN PAINTED BOWL. SBAITA.



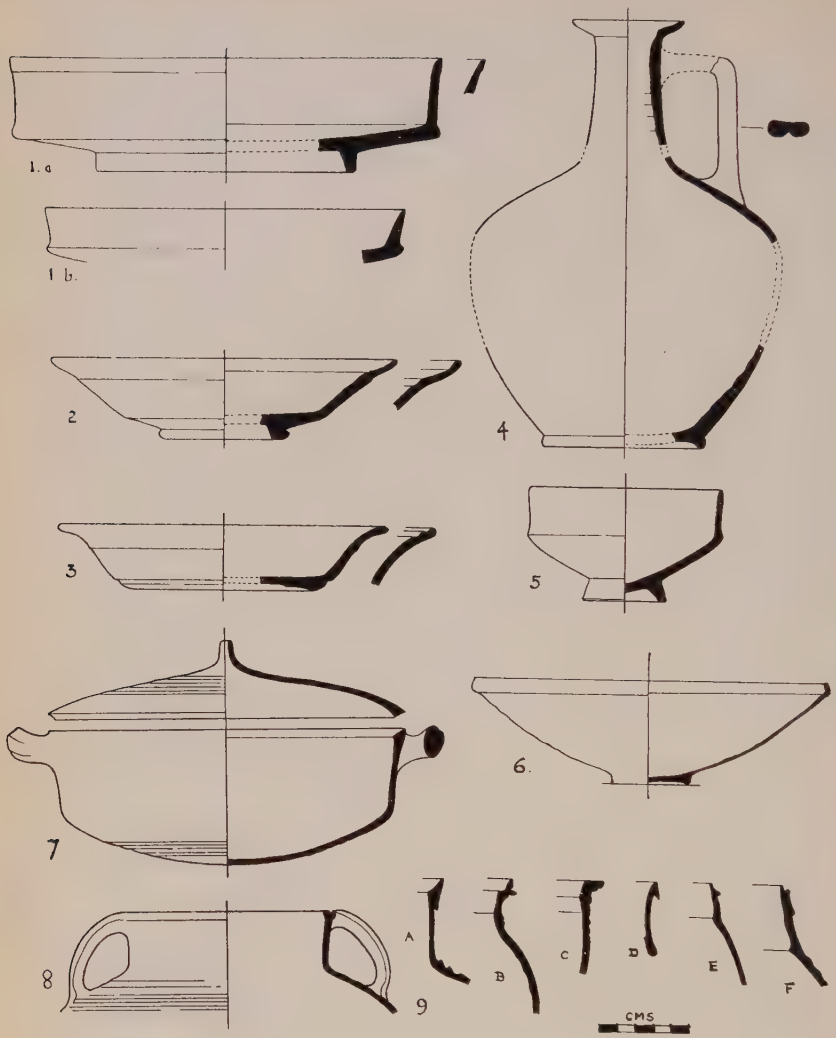
1. Fragment from painted bowl. Sbaita.
2. Sherd with Greek letters on one side and pattern on the other.
3. Rim pieces from bowls. Sbaita.
4. Sherds from painted bowls. Sbaita.
5. Sherds from painted bowls. Upper row Sbaita. Two lower rows, Petra.

All the Sbaita ware is from Deposit 1, except No. 1, which is from Deposit 2.



1. Nabataean plain ware, rouletted. Sbaita and Petra.
2. Bases of Nabataean bowls rouletted underneath. Sbaita and Petra.
3. Red glazed ware from jugs, rouletted. Sbaita.
4. Nabataean bowl bases, with spiral ribbing. Sbaita.
5. Part of a Roman lamp. Sbaita.

All the Sbaita ware is from Deposit 1.



1. Plate.
2. Dish. Type 2. Ware "B"
3. Dish. Type 1. Ware "A."
4. Jug.
5. Cup. Reconstruction.
6. Nabataean bowl. Reconstruction.
7. Casserole with lid.
8. Neck of Cooking-pot.
9. Sections of Jar-rims, d. c.10—12 cm.

Nos. 1—5 are in Terra Sigillata; 6 is Nabataean; 7—9 are Household ware. All from Sbaita. Deposit 1.

was of more account than the token value of the coins. See J. G. Milne. "The currency of Egypt in the fifth century Numismatic Chronicle, 1926. (Pt. 1, p. 43.) The conditions there described are not exactly parallelled in the present coins—for instance, there appear to be no crude "copies" and the cutting extends to the Byzantine specimen of the sixth century."

Conclusion.—Deposit 1 has given information of very real interest, for the assignment of the Nabataean ware to the second century A.D. suggests a continuance of Nabataean culture after the taking of Petra by Trajan (106 A.D.).

Deposit 2 has also given welcome evidence of the continuous occupation of Sbaita, especially in its coins of the fourth-fifth centuries A.D., the time of the story of S. Nilus.

The Early Basilica at Bethlehem

By William Harvey

Few traditional sites in the world are so generally accepted as the Grotto of Christ's birth at Bethlehem, around which the basilica has been built. The walls erected above the place of the nativity are themselves so old as to bear witness to the strength of tradition, though opinions differed widely as to the date of their erection. This existing church, owing to the classic style of the capitals and bases of the great co umns and other details of workmanship, was generally considered to be the original basilica built by the Empress Helena, and richly adorned by her son Constantine the Great.

In 1914, however, appeared the monumental work of the French Dominicans, PP. Vincent and Abel, in which the whole archæological problem was restated; the conclusions drawn from an extensive survey of the actual building and research into the texts relating to its history, were that only the nave and aisles of the present church could be of Constantinian date, while the eastern portion with its three apses was an alteration by Justinian's architect some two centuries later (*c.* 530 A.D.). It must be remembered that under the old Turkish regime in Palestine, it was impossible to make excavations or soundings in the walls, or even to strip the plaster, though Père Vincent confesses in his book to having staged an "accident" in order to bring down a large patch of loose plastering, to expose the stone jointing beneath!

Since the British occupation, the building has shown signs of being in a very serious structural condition, and the present administration decided to carry out a thorough survey. During the course of this survey excavations were made to determine the state of the foundations, bringing to light very extensive remains of a mosaic floor and surrounding walls, which formed an earlier church in the form of a nave of five aisles, with an octagonal sanctuary to the East, around the central grotto,

above which was a circular opening (see Plate I.). This opening appears to have been originally surrounded by a grille, probably of bronze, to allow pilgrims to look down to the grotto beneath.

The foundations of a large part of the western wall of the nave were found in position, including the thresholds of the central door and one leading to the inner northern aisle (see Plate II.). These showed the original pivot and bolt holes, and were much worn by pilgrims' feet ; to such an extent that part of the northern threshold had been filled in with a repair in white mosaic, level with the floor. Outside these doors steps led down to a walk of white mosaic, probably that of an atrium, as a further row of two steps led down to another mosaic pavement sloping westwards. This must have been the open courtyard of the atrium ; it was of white mosaic with lines of a coloured knot-pattern leading towards the doors of the church.

A pilgrim to the shrine would have approached the main doors of the basilica across this court, or through the colonnaded walks on either side. If he were to pass through the central door he would see in front of him a great carpet of coloured mosaic stretching towards the eastern end of the nave and the steps leading to the circular opening above the grotto. This mosaic carpet, when complete, was formed of seven different main patterns, and surrounding borders (see Plate III.). First came a square panel, which with its many borders, filled the whole width of the carpet. These borders were of many colours, composed of natural stone or marble—the widest held wreaths of leaves containing flowers and fruits, while others were composed of wave-pattern scrolls or a complicated network of ribbons. Beyond this square the remainder of the carpet was enclosed in a border of its own, while the six smaller panels were placed two by two within, from West to East. The two western panels contain patterns formed of four swastikas arranged in a cross, the centre and four corners of each being filled with smaller geometrical patterns, squares n one case, octagons in the other. The four eastern panels held circles, each with a different geo-

metrical pattern. Each aisle had a narrower carpet of mosaic with simple patterns, but laid in larger tesserae than those of the central one. The plain white ground on which the carpets lie is also of larger tesserae. In the central nave, beyond the carpet, are two small square panels, on each side of the steps leading to the octagon. That on the North contains in the centre the monogram "ΙΧΘΥC" (see Plate IV.). This was, during the third and fourth centuries, considered the type and emblem of Christianity itself; resolved into initial letters, it stood for the elements of the Christian's Creed: "Jesus Christ God's Son Saviour"; taken as a whole it was the divine "Fish," which combined a pre-Christian memory of the Sun-God in his Fish-incarnation with the Christian mystic interpretation of the miracle of loaves and fishes—seeing in this another Eucharist, wherein the fish typified Christ's offering of Himself.

East of these panels was the octagonal sanctuary, about eighteen inches higher in level. The portions of mosaic which were discovered were of very great beauty, containing a greater proportion of natural forms than those of the nave, including several birds. The patterns are executed in even finer tesserae, the body of a cock, which fills one octagonal panel, being composed of pieces so small that more than four thousand would be needed to cover one square foot (see Plate V.). About five hundred large white tesserae go to the square foot, and perhaps two thousand of those used in the coloured patterns of the nave.

Apart from the mosaics, considerable interest attaches to the solution of many of the archæological problems, now made possible. The complete destruction of mosaic on each side of the long stylobate walls beneath the colonnades, proves that the present nave, as well as the sanctuary, is not original (see Plate VI.). If the columns themselves are of Constantinian date, they must have been pulled down and re-erected on an entirely new bed. The only features of the two plans which coincide are the side-walls and eastern end of the nave, and its division into five aisles. The sanctuary is of entirely different form, as already described, while the nave of Constantine's church was one bay shorter than at present, and opened directly on to an atrium

instead of a narthex. A point of special interest is that the early nave with its aisles formed a square on plan.

A large part of the mosaic was covered with ashes and fragments of burnt wood, suggesting that the early church was destroyed by fire. It was probably burnt during the Samaritan sack of Bethlehem (*c.* 525 A.D.) and the rebuilding may have taken place in 531 and onwards, when the walls of the town, also destroyed by the Samaritans, are known to have been rebuilt.

In part of the present North Transept, outside the north-east corner of the earlier church, were many fragments of Roman roof tiles of a usual type, valuable as evidence of the original roofing.

It was not possible to excavate the whole area covered by the octagonal sanctuary, so its structure and method of roofing still remain doubtful. It is also not certain if the stairs descending to the grotto below were in three faces of the octagon, or in one only, the western, between ascending steps on each side to the surrounding mosaic on a higher level. But there can be no question that the altar at the place of the nativity itself was visible from above through the circular well surrounded by a stone parapet and metal grille as already described.

The Grotto is at present a vaulted crypt, but parts of the rock are visible around the actual site of the nativity and the "Altar of the Manger." The vaulting was probably made in the mediæval period; so were many of the rock-cut passages which are beneath the North Transept and connect the Grotto with the Latin parish church. Certain of the underground chambers, however, must be much older, and are in part natural. On the south side of the church is another series of crypts, formed in natural cavities of the rock by the insertion of walls and arches arranged to bear the weight of the nave columns above. These chambers have been used as a burial place from an early period, and had in some cases been fitted with marble veneer and the ceilings covered with mosaic. These may have belonged to the original basilica, or were perhaps constructed at

the time of the rebuilding by Justinian, to strengthen the foundations.

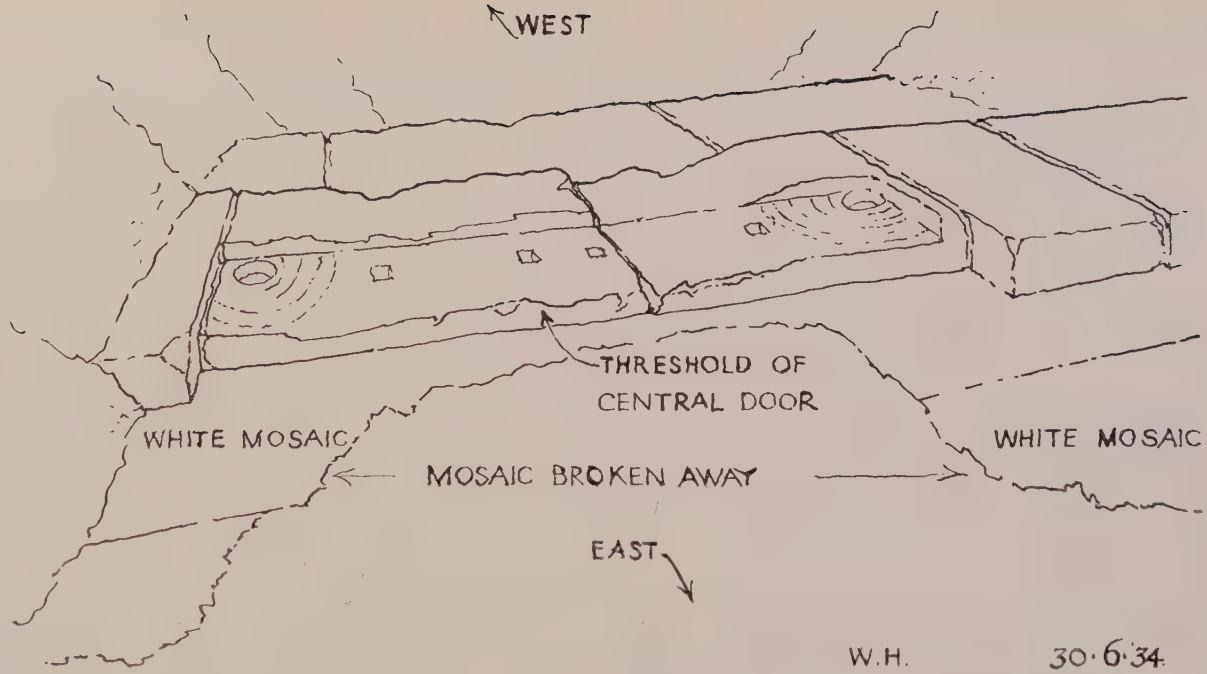
The discovery of the complete plan of the Constantinian basilica should throw light, not only on the architecture of the fourth century but also on the special usages of the early church at the sacred sites. It is noteworthy that there is a common plan-form to all the three great churches of Palestine: that of the Holy Sepulchre, that at Bethlehem, and that of the Ascension on the Mount of Olives.

The first and last are only known from very imperfect remains and from early descriptions, but it is at least certain that both were planned on the dual principle of aisled basilica and concentric sanctuary. The sanctuaries were centred in each case on the actual holy site, in one the Sepulchre, in the other, the rock from which Christ ascended. Circular at the Holy Sepulchre, this structure was octagonal in the other two cases, while at Bethlehem, as we have seen, the centre was over the circular opening of the grotto. The further elucidation of the purpose of these dual plans belongs to the specialist in early liturgy, but it seems likely that the services at these shrines differed from those of other great churches owing to their special sanctity. In this connection it is interesting to notice the form of the mosaic patterns in the nave, which are divided up apparently to a definite design, and have the curious feature of a blank rectangle of white at the ends of each "carpet," merely surrounded by a line of black. May we not suppose that this arrangement served to mark out the sacred "labyrinth" over which the choir ("chorus") danced, a practice which still survives in the Mozarabic Mass of St. Isidore, used at Seville. The use of the swastika, probably the oldest religious and cultural symbol in the world, is significant, occurring in all parts of the mosaic floor, both of nave and octagon.

It is regrettable that no dedicatory inscription was found, though it is still possible that a complete excavation of the remainder of the church would reveal one, or at least some definite clue to the date of the mosaics themselves. Apart from internal evidence, we can say with certainty that when partially

General Plan showing finds.

(*Copyright—William Harvey*)



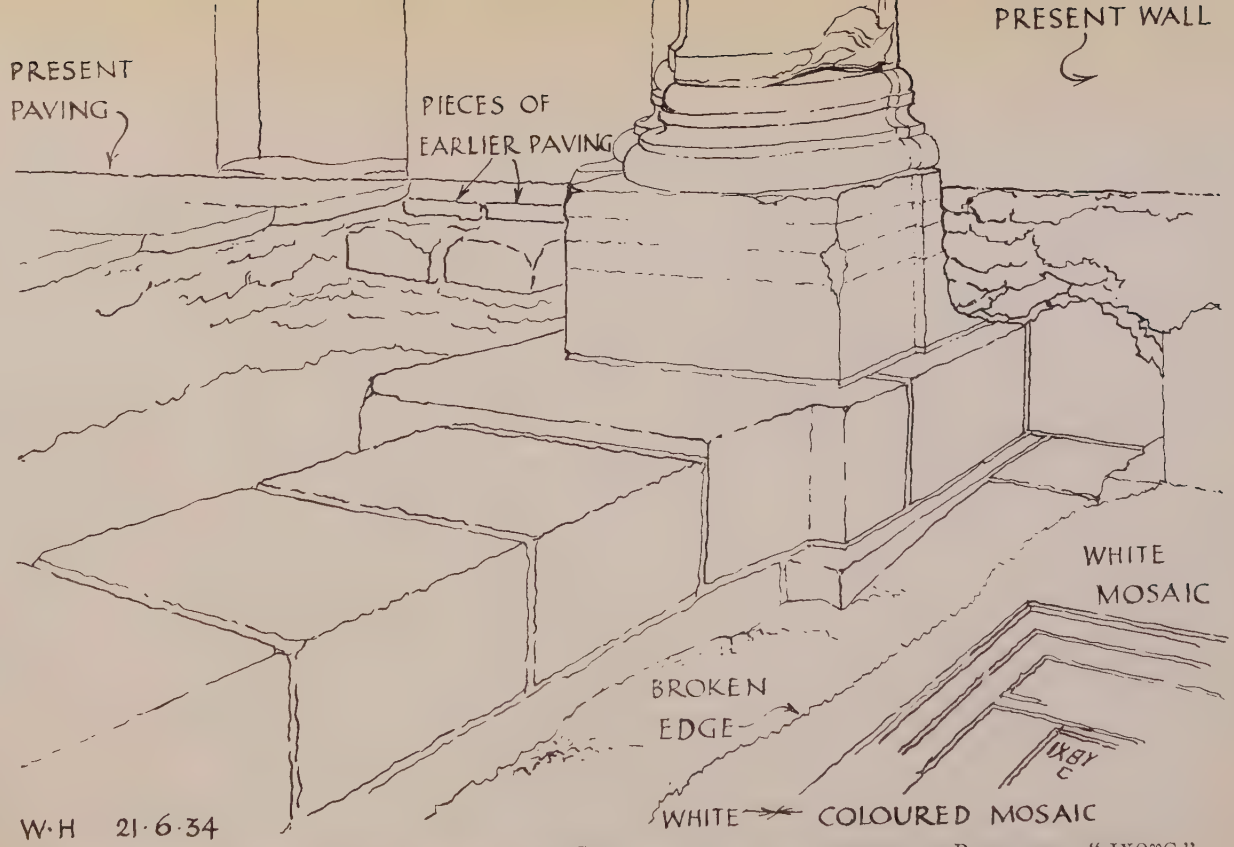
THRESHOLD OF CENTRAL DOOR OF EARLY CHURCH FROM WITHIN.

(*Copyright—William Harvey*)

COMPOSITE PHOTOGRAPH OF MOSAIC COVERING NAVE OF EARLY CHURCH.
(*Copyright—William Harvey*)

PANEL CONTAINING " IXOY."
(Actual size about 74 cm. square.)
(*Copyright—William Harvey*)

OCTAGONAL PANEL WITH COCK.
Actual size about 50 cm. across.
(*Copyright—William Harvey*)



North-eastern corner of Nave, showing later Stylobate walls, and position of Panel with "IXΘYC."

(*Copyright—William Harvey*)

destroyed about A.D. 525, they were already old, and had been repaired on at least two occasions. One repair, presumably the earlier, was very carefully executed, while the other is extremely careless and bears all the marks of poverty and haste. The different motives of the patterns suggest that the original work was carried out by a mixed gang of craftsmen, some having Roman, some Greek, and some Oriental ideas. At any rate, the pattern-books from which they worked, or the choice of designs, were not restricted to one style. Geometrical peculiarities, and the exact numbers of tesserae required in making up the various designs, show that the patterns were first drawn out on squared paper. For example, the square panel containing the "ΙΧΘΥϹ" was designed to be one hundred tesserae across, this being equal to two-and-a-half Roman feet (74 cm.). The occurrence all over Palestine, and in fact, over the whole Roman Empire, of certain designs, strongly suggests the wide diffusion of manuscript patterns, all of which have now disappeared. It is to be hoped that further exploration of the church will be possible, when many of these half-unravelled problems will find their final solution.

Potsherds from Samaria, Inscribed with the Divine Name

By E. L. Sukenik
(*Hebrew University, Jerusalem*)

In the literature dealing with Palestinian antiquities, there are many references to stamps on jar-handles alleged to bear the legends יהו, יה. The first stamps of this kind were discovered at Jericho by Sellin and Watzinger. Later on, additional ones were found in the P.E.F. excavation of the Ophel, and in other places. I have shown elsewhere that these readings are incorrect.[1]

In Samaria, however, there were found a few inscribed potsherds which no doubt bear the Divine Name. Already before the War, the Harvard Expedition discovered the first specimen. The inscription ליו was scratched on the " rim of a bowl with bent sides, of brown ware, red wash, even pebble burnish."[2] From the description of the ware we may date it as still belonging to the Israelite period of Samaria, not later than the eighth century B.C.

Another sherd of the same character, but bearing the inscription ליה, came to light during the excavations of the Chicago Oriental Institute at Megiddo in 1932.[3] The inscription was scratched on the shoulder of a jar, which is described as follows : " medium ware, many light grits, heavily fired, blue-black core, brown-core to burnt-umber surface." It is dated by the excavators as belonging to the period *circa* 600-800 B.C.

The potsherds which I shall describe presently were found by the Joint Expedition in Samaria. They belong to a later date than the first Samaria and the Megiddo specimens, the latest of them being of the Hellenistic period. We are unable to state definitely the purpose of these inscriptions. They might

1. Sukenik, " Paralipomena Palaestinensia," *Journal of the Palestine Oriental Society*, Vol. xiv, pp. 178 ff.

2. *Harvard Excavations at Samaria*, Vol. i, p. 238, No. 65, and Vol. ii, Plate 55 b.

3. H. G. May, " An inscribed jar from Megiddo," *American Journal of Semitic Languages and Literatures*, Vol. xlv, 1935, pp. 10 ff.

have been intended to show that the contents of the vessels were dedicated to God, whether as Temple taxes or voluntary tributes. But at any rate, they testify to the continuous practice of Yahve worship in Samaria. These finds, together with the great number of personal names compounded with יו, found on several potsherds at Samaria, enable us to conclude that, in spite of adopted foreign cults, the worship of Yahve prevailed in Israel.

I. (Fig. 1)

Fragment of body of a jar, thick hard grey ware, white grits, outer and inner surface covered with pinkish smear through which the grits are visible, about 8 × 7 cm. greatest length and width.

Provenance: under the Herodian corridor on top of the hill.

Register: No. Q. 1413. On the upper part there are three letters incised before burning (between 2 and 3 cm. in height):

לִיה

The upper part of the ל is broken away. The other two letters are intact. The first two letters are still in the archaic form, but the last letter is very similar to the ה on the above mentioned stamps found at Jericho. Based on the form of this last letter, as well as on the ware, we might ascribe the fragment to a period not earlier than the Persian era.

II. (Fig. 2)

Fragment of a vessel, medium hard ware with minute white grits, outer surface covered with thin buff smear, about 6 × 5 cm. greatest length and width.

Provenance: The debris above the Herodian corridor, not far below the surface.

Register No.: Q. 2538.

Across middle of fragment there are five letters freely incised before burning (between 1-2 cm. in height):

לִיהוה

The lower portion of the first letter is broken away, therefore making it impossible to state its exact complete form, whether Old-Hebrew or Aramaic. From the form of the other letters, I should be inclined to assume that the ל had the later Aramaic

form. The lower part of the second letter י is likewise missing. However, part of the inclined vertical stroke and the entire upper bar remain. It is impossible to say whether there were a lower bar and a cross bar forming the archaic character. But, considering the juxtaposition of the י with its neighbouring letters, it seems unlikely that there were lower bars. If there had been a cross bar, considering the position of the letter, some remnant of it would have been visible, even though the lower part of the י is broken away. We, therefore, must accept this as an inverted V-shaped form of י.

The last three letters are preserved intact, except that the tip of the horizontal bar in the last letter is broken away slightly. Both ה closely resemble similar characters on ossuaries. The intervening ו has an elongated vertical stroke reaching below the bottom of the other complete letters visible. The head is V-shaped. The י also reminds one of the letters on ossuaries.

From the general appearance of the letters, from the full form of the tetragrammaton, and from the ware itself, one may conclude that this fragment could not have belonged to a period earlier than the Hellenistic. I should be inclined to date it as late as the second century B.C.

III.

There is another fragment found in Samaria, which might also bear an inscription dedicated to Yahve. However, I am publishing my reading with reservations.

Fragment of hard ware, grey in section, outer surface red, inner surface brown. Small dark pink and white grits, greatest length and width 6 × 4 cm.

Provenance: As No. I.

Register No.: *Q.* 1205.

On the outer surface are four incised signs. Three of them are below each other, the order reading from top to bottom. The fourth sign is to the left of this group. (Fig. 3).

I am inclined to read the first three signs

לִיה

The upper portion of the ל is lacking. Only the lower part of the shaft and the base remains. The י is complete, the

Fig. 1.

Fig. 2.

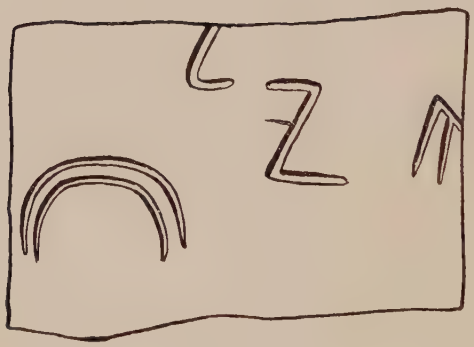


Fig. 3.

cross bar is not distinctly scratched. Of the ה the two upper bars and the upper portion of the vertical shaft remain. The crescent-shaped sign to the left of the group seems to have been some form of a numeral, probably ten. Signs of this kind, sometimes enclosing a cross-like mark, have also been found at the Ophel excavations of the P.E.F. We may compare these signs with those of a different form, resembling more an archaic ט which were inscribed on jars at Elephantine, and also on stamps in Palestine.

It seems to me that the same word לוה with this semi-circle and another mark (numeral sign) appears on a potsherd from Gerar, as may be concluded from the surviving letter.[1] It is interesting to note, in passing, that among all these inscriptions found in Samaria, ranging as we have seen, till the Hellenistic period, there is no inscription composed of characters resembling the Samaritan Alphabet. This instance once more shows that this alphabet is not to be considered as a material evolution of the Old Hebrew-Phœnician alphabet, but is an artificial revival in a later period.

1. Flinders Petrie, *Gerar*, Plate xliii, 3.

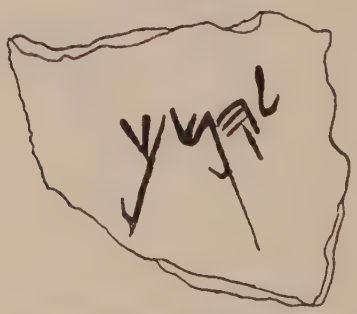
Supplementary Note on the Tell Duweir Scarab

By S. H. Hooke

In the October issue of the QUARTERLY STATEMENT an interesting inscribed scarab from Tell Duweir was published. In my comments on the inscription I hazarded the suggestion that in the broken fragment of the lefthand top corner of the scarab there might have been room for another letter, and tentatively restored a *lamedh*, reading (*l*) *smk*. Since the publication of the scarab I came across an ostracon with an inscription, from Tell el-Ḥesy, published nearly forty years ago in the QUARTERLY STATEMENT for April, 1892, pp. 126-8. It is reproduced again here (Fig. 1) for comparison with the inscription on the scarab. I have very little doubt that the inscription on the ostracon should be read as *lsmk*, and Mr. Sidney Smith, who kindly examined both inscriptions, confirms this opinion. Hence it may be regarded as providing a parallel for the use of *smk* in inscriptional material.

With regard to the interpretation of the word, Mr. Sidney Smith suggests that the usage of scarab inscriptions of this period would lead one to expect a desiderative form, the expression of a wish, "may he (*sc.* the god) confirm or support." In spite of the parallel from Tell el-Ḥesy, it is possible that the missing letter might have been a *yodh*, which would give the desiderative sense required. The intensive form of the verb *smk* in Syriac is used in precisely the sense required.

FIG. 1.



OSTRACON FROM TELL EL-HESY

The Meaning of the Name Mishal

By D. Winton Thomas

I RECENTLY suggested in this Journal[1] that in certain Hebrew place-names, for which no meaning had hitherto been offered, some reminiscence of a religious practice, in this case dancing, has been preserved. The place-name, Mishal (Joshua xix 26,[2] xxi. 30), in the territory of Asher, suggests that another kind of religious practice was carried on in this locality.

Two well-known facts point the way to what may well be the original significance of this name. First, there is the frequent use of שׁאל in the O.T. in the sense of "enquire, consult" a deity or oracle.[3] Secondly, the early Semitic belief that the divine will could be consulted and oracles obtained at certain well-known spots, held to be sacred, needs no emphasising. These two facts combined suggest that the real meaning of מִשְׁאָל is "place of enquiry," and that the name points to the existence at some time in this neighbourhood of an oracle-sanctuary, to which men resorted to discover the will of the deity.

Attempts to derive מִשְׁאָל from שׁאל have been surprisingly rare[4]; in fact, I have been able to discover only one, viz., in the list of proper names given at the end of C. J. Ball's *Light from the East*; here Mishal is translated "request." There

1. See QUARTERLY STATEMENT, Oct. 1933, p. 205; July 1934, p. 147; April 1935, p. 89.

2. A. V. Misheal. The form of the name in I *Chronicles* vi. 59 (Eng. vi. 74) Mashal (מָשָׁל) is probably nothing more than a clerical error. See C. R. Conder in Hasting's *Dictionary of the Bible*, Vol. 3, p. 397, and Siegfried and Stade, *Hebr. Wörterb*, p. 387.

3. The instances can be found in Brown-Driver-Briggs, *Hebr. Engl. Lex.*, p. 982. The root is used similarly in Assyrian (Muss-Arnolt *Ass. Dict.* p. 996) and in Syriac (Payne-Smith, *Thes. Syr.*, II. 4004).

4. Brown-Driver-Briggs, *op. cit.*, p. 602, recognise no connection between the two words.

is nothing, however, against such a derivation; and for the translation "place of enquiry" it is enough to compare words like מִדְגָּר "place of driving (cattle)," מִדְרָךְ "place of treading," מִשְׁפָּט which, besides its usual meaning "judgment, decision," can also mean "place of judgment.[1]" (Cp. in Arabic nouns which indicate the place at which the act as expressed in the verb is performed, e.g., *muẓallan*, "place of prayer,"[2] *masgid*, "place in which one performs the act of *sugud*.[3]") Finally, it may be remarked that the Ethiopic מסאל is said to mean *locus ubi aliquid peti solet, ut in Templis*.[4]

It may not, then, appear too hazardous if we see in the name Mishal an indication that it at one time enjoyed a local reputation as a sacred spot, where, it was believed, oracles were to be obtained.[5]

1. Brown-Driver-Briggs, *op. cit.*, p. 1048.
2. Lane, Arab. Eng. Lex., 1721.
3. *Ibid.*, 1308.
4. Walton, *Polygl.*, VIII 3367.
5. Reference may be made to C. F. Burney's article in *Journ. of Theol. Studies*, XIII, 83, where it is suggested that the place-name אשתאול means "place of consulting an oracle," just as אשתמוע means "place where prayer is heard." See further J. A. Montgomery, *Some Oracle Place Names*, Journ. of Bibl. Lit., XIV., p. 61 (March 1935). May the place-name Shema (שְׁמַע) in Southern Judah (Josh. xv. 26) also point to an oracle site, where the deity "gave a hearing" to those who came with their requests? Imperative in form it may perhaps mean "Hear (O God)!"

An American Settlement in Palestine.

By Albert M. Hyamson

On pages 124 *et seq.* of the Quarterly Statement for April, 1900, there are some notes on the History of Modern Colonisation in Palestine contributed by Canon Hanauer, still a valued contributor to the Quarterly Statement. A page of these notes is devoted to the abortive settlement in 1866 under the leadership of G. J. Adams, the founder of the Church of the Messiah. Since the date of those notes the Foreign Office archives for the year 1866 have been made available to the public and it is therefore now possible to publish the British Consular reports on this unfortunate attempt. If any further reports were made they do not appear to have been preserved. Some of the wooden houses are still to be seen in the German Colony district of Jaffa, midway between Jaffa town and Tel Aviv.

It will be seen from the two reports that follow that Canon Hanauer's account differs in a few details from that given from the British Consular officer at Jaffa. In the first place the initial letter of the name of the leader of the party was A. not G. J. The number of settlers given by Mr. Kayat was 156 not 153, as stated by Canon Hanauer. The two reports are to be found in Volume 808 of the Foreign Office Series No. 195, preserved at the Public Record Office.

British Consulate,
Jerusalem.
November 10th, 1866.

No. 9
Sent home as Consular
No. 20 of November 12.

My Lord,

I have the honor to transmit for Your Excellency's information, a copy of a Report addressed to me by Mr. H. Kayat, in charge of the Vice-Consulate at Jaffa, on the arrival and establishment of a Colony of Americans at that place.

Previously to the advent of the immigrants, I took an opportunity of conversing with Izzet Pasha on the subject, pointing out the advantage of giving the Colonists a friendly reception and affording them the needful facilities, protection, and Justice. The fact, I said, of a flourishing European com-

munity living under direct Turkish Jurisdiction (for such is the condition of Foreign Colonisation in Turkey) would, apart from the benefits the country would derive therefrom, go further to disprove the aspersions of the enemies of Turkey than volumes of written and newspaper reputation. His Excellency, with his usual sagacity, entirely agreed with me, and the event, proved his sincerity. The Scheme, however, appears to have been ill-organised, and since the date of Mr. Kayat's communication, sickness, attended by a high rate of mortality, and, report adds, other unfavourable symptoms, have manifested themselves amongst the immigrants.

It is to be feared that the enterprise is destined to add another to the list of similar Schemes that have ended in disastrous failure. In the meantime, a difficulty has arisen, between the Pasha, acting under the orders of the Governor-General at Damascus, and the United States Consul here, in connection with the Colonists, these not having fulfilled the formalities required by the Regulation respecting Foreign Colonisation in Turkey, and a correspondence on the subject is now going forward between these Functionaries.

I have the Honor,
to remain Your Lordship's
Most Obedient Humble Servant,
NOEL TEMPLE MOORE.

His Excellency the Rt. Honble.
Lord Lyons, G.C.B.
H.M. Ambassador Extraordinary,
etc. etc. etc.
Constantinople.

[Endorsed.]
Received December 6.
By Austrian Boat.

F.O. 195/808.
Copy.
No. 7.

BRITISH VICE-CONSULATE,
JAFFA.
September, 26, 1866.

SIR,

I have the honor to report to you the arrival here on the 22nd instant. of an American Clipper the "Nelly Chapin" of 600 tons W. Wap, Master, direct from Jonesport (near Boston) in 41 days.

This vessel brought 156 American emigrants they belong to different States, but the majority come from the State of Maine. They come to settle near Jaffa with the object of cultivating the soil. The most of them are farmers, carpenters,

blacksmiths and tradesmen, and they bring with them their implements and wooden houses, all ready made and easily put up. They landed on Monday last the 24th September, on the beach, on the north side of the Town, where they have pitched tents temporarily until the whole of the cargo is discharged from the ship. They purpose in a few days to remove to a plot of land outside the town which was purchased for them some months ago from Mr. Loewenthal the U. S. Vice-Consul here. They intend to erect their houses on the ground, and to cultivate the adjoining land which belongs to them and thus to maintain themselves.

The Colony is headed by the Revd. A. Adams, who is obeyed by all the Brethren, as they call themselves Brethren of the Church of the Messiah.

The ostensible and declared object of their leaving their Country (where they sold all they possessed) is out of a strong and earnest desire to live and die in the Holy Land, as they beleive [*sic*] that ere long great changes will take place, *i.e.*, as I hear from them, the gathering together of the Jews from all parts to this Country and the Advent of Christ.

They say they do not come as missionaries but only to cultivate the land to set a good example in agriculture and trades, and to earn their livelihood, to live peaceably, and to submit to all the local regulations and taxations.

They believe that some of them are part of the tribe of Ephraim and their Chief the Revd. Mr. Adams is of Jewish descent, he is a very energetic and enthusiastic man, and is respected and obeyed by all the Bretheren. [*sic*]

The Local Authorities made no difficulties on their landing. The Mudir has been very civil to them and has sent several Zaptiehs to guard their tents. The inhabitants seem pleased at their coming, and anticipate an opening and increase of trade in these parts.

It will be my duty to keep you informed of the further movements of the Colony.

I have the honor to be, Sir,
Your Most Obedient Humble Servant,
Signed. H. A. KAYAT.

Noel T. Moore, Esqre.
Her Majesty's Consul.
etc. etc. etc.
Jerusalem.

[Endorsed]
Inclosure in Consul Moore's Dispatch No. 9.
Jerusalem, November, 10, 1866.

Reviews and Notices of Publications

The Ancient Synagogue of El-Hammeh. By E. L. Sukenik. Jerusalem 1935, pp. 99. Fig. 35 in the text, plates xxiii.

(*The account of the results of Professor Sukenik's remarkably quick excavations—from October* 31 *to November* 15, 1932—*has been reprinted from the Journal of the Palestine Oriental Society, XV*, 1935, *pp.* 101-180.)

Professor Sukenik's studies include not only the synagogue but also the remains of the Roman bath and the theatre of this ancient watering place. In an appendix the synagogues of Umm El-Qanatir, Khirbet Kanef, and Er-Rafid are briefly mentioned. Undoubtedly the groundplan of the synagogue of El-Hammeh forms the most interesting part of the excavation. The synagogue had the shape of a basilica and possessed, as Professor Sukenik thinks, galleries, probably for women ; the orientation of its apse is towards the south, *i.e.* roughly towards Jerusalem, as one would expect to find in a synagogue of the Byzantine period. (*Cf.* my forthcoming article on the subject in the Journal of the Palestine Oriental Society). At each side of the apse which lies on a lower level than the nave a small chamber was discovered, the synagogue proper being surrounded by adjacent buildings. (*Cf.* on this latter point S. Klein in : *Monatschrift für Geschichte und Wissenschaft des Judentums*, 76, N.F. 40, 1932, p. 545 seq.)

The side chambers adjoining the apse are not explained by Professor Sukenik and therefore their remarkable similarity with Christian churches of the " Syrian " type is not considered. The other synagogues previously known, do not follow the same type, and so in El-Hammeh the question of a Christian influence on a Jewish building can be raised. Unfortunately the short time given to the excavations seems to have hampered the solution of some problems. It is to be regretted, that an inclusion of detailed plans and photographs of these excavations was omitted as such details would have been helpful to elucidate

points of special interest. For instance, the chamber on the east side of the apse in the ground-plan on pl. vii. does not show an entrance. This difficulty might be accounted for by the fact that Professor Sukenik's excavation took place at the level of the foundations, where traces of an entrance did not exist, In the same way the low level of the apse cannot be explained solely by the evidence given ; if the facts are as stated by Professor Sukenik it would not seem impossible to connect them with the Talmud tradition concerning the prayer in Psalm 130 : "Out of the depths have I cried."

The design of the mosaic pavement of the synagogue of El-Hammeh is purely ornamental with the exception of four inscriptions and the tabula ansata of a fifth, as well as two cypress trees and two lions, the latter typical for synagogue decoration. Of these Aramaic inscriptions no details can be given here, but it should be mentioned that three of them speak of God as the "King of the Universe," מלך עלמ, מלך עלמה and that one includes the title Rab רב, the usual denomination of a Babylonian teacher. Considering the importance of this title Professor Sukenik's explanation that a Palestinian teacher is referred to, and that the consonant *yod* is lacking seems less satisfactory than the assumption that the title refers to a Babylonian teacher.

Special mention ought to be made of some details, especially of the masons' marks in the theatre (fig. 8) and of the fragments of a screen (p. 58-69), which Professor Sukenik compares with fragments found in other places.

Professor Sukenik's publication raises a great number of problems, and therefore possesses great value for every student interested in Palestinian archæology and the history of the Synagogue.

HELEN ROSENAU.

The Assyrian Laws. Edited with translation and commentary by G. R. DRIVER, M.A., Fellow of Magdalen College, and Reader in Comparative Semitic Philology, Oxford ; and

JOHN C. MILES, Kt., M.A., of the Inner Temple, Barrister-at-Law; Fellow of Merton College, Oxford. Oxford University Press. 35s. net. xxiv., 534 pp.

THE appearance of this book is an event of considerable importance to students in various fields of learning, and especially to students of the Old Testament. The partnership between two scholars, each distinguished in his own field, has been an auspicious one. Mr. Driver's part in the production of the book has been the transliteration and translation of the text of the laws, the very valuable textual and philological notes following the text, the Sumerian and Assyrian glossaries, and of course, all the material in the Introduction relating to the wide field of Oriental language and custom. The excellence of Sir John Miles' contribution to the book will receive its due meed of expert appraisal in those journals more especially devoted to legal studies, and it need only be remarked here that he has rendered a great service to the study of the history of civilisation by emphasising afresh the debt which Western systems of law owe to the ancient East.

But readers of this journal will be specially interested in those aspects of the book which illustrate and illuminate the laws and customs of the Hebrew people as we have them in the Old Testament. The main body of the book is devoted to a collection of laws to which the authors have given the name of Middle Assyrian Laws, to distinguish them from the fragments of Old Assyrian Laws whose source is unknown, but which are assigned on internal grounds to about the middle of the third millennium B.C.

The Middle Assyrian Laws are contained on nine Tablets or fragments of Tablets now preserved in the State Museum of Berlin, and which were recovered from the German excavations at Qal'at Šarqaṭ. They are assigned by the authors to the period between 1450 and 1250 B.C., and are consequently contemporary with the Tell el-Amarna period.

The importance of this period for the beginnings of Hebrew civilisation is sufficiently well-known to need no elaboration.

Most students of the Old Testament are already acquainted with the Babylonian laws contained in the code of Hammurabi, and will therefore be particularly interested in the full comparison provided in this book between the Assyrian Laws and the relevant parts of the code of Hammurabi. The range of this collection of laws is limited to legislation relating to women, and to matters of land tenure. Hence it is clearly not a code or even a part of a code, but is described by the authors of this book as a series of Assyrian rules relating to certain subjects where the laws of the two countries differed most widely, and as applicable in cases where the provisions of the Babylonian code are repugnant or inadequate to Assyrian needs and customs.

It is a happy circumstance that the particular field covered by these laws touches on a number of the most important problems of Hebrew law and custom, and the student will find that there is hardly a page which does not contain some reference to a Hebrew law, incident, or custom illustrated or explained by a parallel in the Assyrian Laws.

It is only possible here to mention the various topics in which such parallels are found, and to select one or two for fuller description. We have a discussion of many interesting marriage customs, of the important institution known as the Levirate, of divorce, of the status of widows and of wives deserted by their husbands, and of a number of problems connected with the various technical terms relating to gifts and presents accompanying marriage or betrothal. The institution of the ordeal raises problems concerning the Hebrew use of the ordeal. The question of punishment and its administration affords many parallels with Hebrew usage and enables us to form some judgment as to the difference or similarity between Assyrian and Hebrew ethical standards. The question of sorcery is dealt with in the Assyrian Laws and throws light on the Hebrew legislation relating to the same subject. A good deal of the Pentateuchal legislation deals with matters relating to the tenure of land and to debt, here again the student of the Old Testament will find interesting parallels and contrasts in the laws contained in Tablets B and C.

One of the most interesting points raised by the Assyrian Laws is the question of the ordeal. The two principal forms of ordeal practised in Babylonia and Assyria were the river ordeal and the ordeal by oath. The use of the former type of ordeal is prescribed, among other cases, to decide the guilt or innocence of the wife who is suspected of adultery. This is the only case in Hebrew legislation in which we have an actual description of the ritual of the ordeal (Numbers, v, 11-31). An important difference between Assyrian and Hebrew usage in the administration of the ordeal seems to be that in Assyrian practice the ordeal was purely voluntary and was arranged between the parties concerned. This is in keeping with the general attitude of the Assyrian Laws towards the relation between husband and wife; in general the husband's power over his wife was absolute, he could punish or pardon her at will. But in the Hebrew application of the ordeal to the case of adultery, the ordeal was carried out by the priest. Also there was a difference between the method of the water ordeal in the two cases. In Assyria the wife had to "leap into the holy river for her husband," and according as she sank or floated, her guilt or innocence was supposed to be proved. But the Hebrew application of the water ordeal was by making the wife swallow the water into which the words of a curse written on a tablet had been washed off. The curse was supposed to operate materially, and produce certain physical changes in case of the guilt of the wife.

Space will not allow of the discussion of further parallels, but it must suffice here to say that this book is indispensable for the student of the Old Testament. It would add greatly to the value of the book for this purpose, if an index of the many Old Testament passages cited could be added to a subsequent edition. It is greatly to be hoped that the reception of this most valuable book will encourage the authors to proceed with their intention of making a similar study of the Code of Hammurabi and of Hebrew laws.

S. H. H.

Palestine of the Arabs. By STEWART ERSKINE; Harrap & Co. 10s. 6*d*.

THIS book is described on the detachable cover as being "a study of the Palestine problem from the Arab point of view." In fact it contains a readable and discursive account of post-War events and activities in Palestine as they might appear to an Arab "sympathiser." In political aspect of the book is not within our sphere; we need only say that, though dislike of Zionist activity is undisguised, the authoress nevertheless makes commendable efforts to state with fairness the Jewish point of view. She would, however, have been well advised to omit some stories which are more apt to entertain than to carry conviction. Those acquainted with the career and character of the late Lord Melchett, for example, will find it difficult to credit that eminent man of science with the strange aspiration "to rebuild the Temple of Solomon." Yet, we are told, he at one time stated his desire to work for the rest of his life towards this end (p. 167), thus confirming Mrs. Erskine's suspicions as to Jewish intentions in this connection.

Mrs. Erskine devotes one chapter to archæology, a welcome concession in a book of this description. The concentration of her interest upon Tell el Duweir with which the chapter is exclusively concerned, is possibly due to personal considerations. The work at Tell el Duweir is, indeed, of great importance, yet we might have expected more than a casual mention of Jericho, and some reference at least to Ophel, Samaria, Melgiddo and Beisan in an achæological chapter, purporting to deal with post-War excavation in Palestine, as a whole.

The administrative work of the Government is discussed, not inadequately, and with a measure of approbation, the reference to the welfare work of Miss Nixon, being particularly warm and well deserved. References to law and legislation are less adequate. It is perhaps only for the legal purist to cavil at a description of *meska'a* land as being "communal land owned by a village." But while it would hardly be fair to demand from a lay writer technical accuracy of legal description

a more adequate account of the very bulky post-War legislation of Palestine might well be expected. In particular, the account of the Protection of Cultivators' Ordinances is inadequate and misleading. In a book in which so much stress is laid upon the grievances of the "fellaheen" care should have been taken to explain more fully what has been done to meet them.

It is pleasant to add that the illustrations are excellent; they are well reproduced, most of them are interesting and some of them unusual.

F. M. G.

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

In Memoriam

HIS MAJESTY KING GEORGE V.

(Patron of the Palestine Exploration Fund since May, 1910)

DIED JANUARY 20, 1936

THE greatly lamented death of our late revered Sovereign King George V, deprives the Palestine Exploration Fund of its honoured Patron. This office His Majesty graciously accepted on his accession in 1910, in succession both to his father King Edward VII, and his grandmother, Queen Victoria.

More than fifty years ago, when he was Prince George, His Majesty spent some weeks in the Holy Land, in company with his brother, the late Prince Albert Victor of Wales.

It was on March 28, 1882, that the Royal party arrived at Jaffa, and they re-embarked at Beirut on May 6, having thus been on shore for forty days, during thirty-one of which they had been travelling. Their Royal Highnesses were attended amongst others, by Rev. J. Dalton and Captain Conder, on behalf of the Fund. In the report on the Princes' tour which appeared in the QUARTERLY STATEMENT for October, 1882, it is stated that they travelled nearly six hundred miles, at an average of about nineteen miles each day. They visited Jerusalem, Bethlehem, Hebron, Jericho, Amman, Jerash, Samaria, Nazareth, Tell Hum, Banias, Damascus, Baalbek, and many

another famous site. Perhaps their most interesting visit was that to the Haram at Hebron, on the April 5. Accurate measurements were taken during this visit, and a plan was drawn which was published in the same number of our Journal. The great cave beneath the floor of the enclosure was not, however, entered, and Conder remarked that, "This cave is never visited by Moslems, and it has probably not been entered for 700 years at least."

With reference to the visit to Jerash, Conder says, "Owing to its remote situation this fine ruin is rarely visited. The last Royal personage who appears to have journeyed to Jerash was the Crusading King Baldwin II, who attacked a castle here, built by the Sultan of Damascus in 1121 A.D." With the approval of Their Royal Highnesses, every opportunity was taken on this journey to add to our knowledge of the sites which were visited. Thus, Conder remarks, "The sources of the Jordan were reached by the Royal party on April 25, and a very important discovery was made on that day. The great mound at Tell el Kady has long been recognised as the site of the town of Dan, where one of the golden calves is related to have been set up by Jeroboam. Josephus mentions "a little temple" in which the golden calf was placed. In another passage he mentions this sanctuary as situated near Daphne, at the junction of the great and lesser Jordan. Daphne is the present ruin of Dufna, close to Tell el Kady, and between the two streams."

The Princes assisted in this work of adding to our exact information about the Holy Land and its sites. Thus it is mentioned that at Hebron, "the interior of Joseph's tomb was measured with a steel tape by the Princes themselves." Indeed, the knowledge which King George possessed of the Holy Land was no superficial acquirement, but was the result of many weeks of strenuous travelling and patient examination. And the Palestine Exploration Fund may feel a melancholy satisfaction in the thought that the Society was privileged through the agency of Captain Conder and others, to be of some service to His late Majesty during this memorable journey. In grieving for the death of our beloved Sovereign and Patron, we also lament the loss of one who was well acquainted with, and approved of, the work of the Fund in the Holy Land.

The following resolution, passed at a meeting of the Executive Committee on January 30, 1936, was signed by the Archbishop of Canterbury, as President, and by the Chairman, Sir Charles Close :

"*To His Most Excellent Majesty the King.*

"May it please Your Majesty,

"We, the President and Committee, on behalf of the members of the Palestine Exploration Fund, beg leave, humbly to offer our deep and heartfelt sympathy in the loss which Your Majesty, the members of the Royal Family, and the Nation, have sustained by the death of Your Royal Father, our late Most Gracious Sovereign, King George the Fifth, whom we mourn not only as the beloved Ruler of this great Empire, but also as the Gracious Patron of this Society.

"We most respectfully tender to Your Majesty our sincere devotion and loyalty on your accession to the Throne, and earnestly pray that it may please the Almighty to grant Your Majesty a long, happy and peaceful reign."

(Signed) COSMO CANTUAR, *President.*
C. F. CLOSE, *Chairman of the Executive Committee.*

The following letter was received in reply from Sir John Simon :

HOME OFFICE,
WHITEHALL.
March 20, 1936.

MY LORD ARCHBISHOP,

I have had the honour to lay before the King the Loyal and Dutiful Address of the Members of the Palestine Exploration Fund on the occasion of the lamented death of His late Majesty King George the Fifth and have received the King's Commands to convey to Your Grace as President of the Fund His Majesty's grateful thanks for the assurances of sympathy and devotion to which it gives expression.

I have the honour to be,
My Lord Archbishop,
Your Grace's obedient Servant,
(*Signed*) JOHN SIMON.

His Grace the
Lord Archbishop of Canterbury.

Owing to the unusual pressure on our space we regret that we are obliged to omit a number of reviews and notices of books which have been awaiting publication for some time, but we hope to be able to give a larger amount of space to these in the July issue.

The results of the recent excavations at Ai will cause some perplexity to those who pin their faith too simply to the spade. The eminent French archæologist, M. Dussaud, writes concerning these results: "One of the most unexpected results of the two campaigns of excavation carried on at Ai, has been to show that the site remained unoccupied during the whole of the Middle and Late Bronze Age, that is, from 2000-1200 B.C. The name *ha-Ay*, 'the ruin,' can only have been given to the site after the destruction of the city, that is, after 2000 B.C. From this Mme. Marquet concludes that the site was desolate when the Israelites began the conquest of Canaan.

Hence the results of the excavations at Ai throw an unexpected light on the book of Joshua. Biblical criticism has called attention to the legendary nature of the account of the taking of Jericho. It is clear that these accounts are intended to furnish a ritual justification for the taking possession of the site. On the other hand, the results of the excavations at Jericho have led many biblical students to admit that this city was already destroyed when the Israelites appeared before it.

As against these results, cc. 7 and 8, relating to the capture of Ai seemed historically probable, and it was hoped that the problem of the date of the entry of the Israelites into Canaan would be solved by systematic excavations at Ai. These excavations have, in the opinion of competent judges, been perfectly carried out, and lead to the conclusion that the narratives describing the capture of Ai are no more historical than those which describe the crossing of the Jordan or the fall of Jericho. This will not surprise those biblical critics who place more reliance on the book of Judges than on Joshua; but it destroys the attempts at harmonisation hitherto in favour.

Both Professor Albright and Canon Phythian-Adams have offered explanations of some of the difficulties apparent in the narratives of Joshua, and it will be of no little interest to students

of the Old Testament to hear how Professor Dussaud's inferences from the Ai excavations are dealt with.

It will be a matter of regret to those who have followed the course of Palestinian archæology since the war to learn of the resignation of Professor Albright from the Directorship of the American School of Oriental Research. His labours have been wide, varied and fertile, and the *Bulletin of the American School of Oriental Research* is always eagerly awaited by students of the archæology of Palestine. He has trained a number of excellent archæologists, one of whom, Dr. Nelson Glueck, will carry on his work. The result, however, will probably be a gain to the field of Oriental scholarship, since Professor Albright will, we hope, have more leisure to devote to those studies to which he has already made so distinguished a contribution.

The good wishes of all who are interested in the archæology of the Near East will follow Sir Leonard Woolley's new venture in Syria. The great importance of the finds at Ras Shamra gives grounds for expectation that further evidence of the existence of that many-sided civilisation in other parts of northern Syria may be forthcoming. It seems improbable that the use of the cuneiform alphabetic script which was one of the most surprising discoveries of Professor Schaefer's expedition, should be confined to one locality. Professor Albright gives summary dismissal to the theory of the southern origin of the Ras Shamra speech and cult, but further evidence is desirable before definite pronouncements can be made on this point.

The significance of the Lachish Letters continues to provoke discussion which, unfortunately, is at present almost entirely confined to Hebrew periodicals, and English students still await the publication of Professor Torczyner's authoritative edition of the ostraca which was promised for the autumn of last year.

The excavations at Jericho continue to yield important results. Professor Garstang reports the uncovering, during this season's excavations, of a series of chalcolithic floors and deposits, bearing evidence that the beginning of the Bronze

Age in Palestine coincided with the First Dynasty in Egypt. It seems possible that Jericho may prove to be one of the earliest inhabited sites in Palestine.

P.E.F. Lecture. Thursday, April 30 at 5 p.m.—The Hebrew Monarchy and Archæological Discoveries. By J. W. Crowfoot, C.B.E., M.A.

Admission to this lecture in the Fund's lecture room at 2 Hinde Street, Manchester Square, W.1, is free, and open to all interested.

"The Wilderness of Zin" by C. L. Woolley and T. E. Lawrence. A second edition of this work has been published by Messrs. Jonathan Cape, at 18*s.* net, and a review appears on page 113 of this number. This book may be obtained from the P.E.F. by means of the enclosed order form. A few copies of the first edition are still available at 30*s.*

The Annual Report and Accounts for the year 1935 is issued with this number.

The Committee have to acknowledge with thanks the following:

The Antiquaries Journal, XVI, 1.

Annals of Archæology and Anthropology, University of Liverpool, XXII, 3-4. Jericho: City and Necropolis (Fifth Report), by J. Garstang, J. P. Droop and Joan Crowfoot.

The Expository Times, Jan-March, 1936. Some outstanding Old Testament Problems, III-V, by Professors E. O. James, H. H. Rowley, and C. R. North. Recent Biblical Archæology (March), by J. W. Jack.

Iraq, II, 2, Oct., 1935. The Nimrud Ivories and the Art of the Phœnicians, by R. D. Barnett.

Religions, Jan. 1936. The Iranian Religion at the time of Darius and Xerxes, by E. Herzfeld.

The Journal of the Royal Anthropological Institute, LXV, 1935.

The Scottish Geographical Magazine, Jan-March, 1936. Agriculture in Mesopotamia in Ancient and Modern Times, by Miss A. B. Lennie.

Great Britain and the East, Jan-March, 1936.

New Judea, Jan-Feb., 1936.

The American Journal of Philology, LVII, 1.

The American Journal of Semitic Languages and Literatures, LII, 2. New Light on Babylonian Mathematics, by L. C. Karpinski. The Significance of the Paradise Myth, by R. Gordis. Aramaic Dialect Problems, II, by H. L. Ginsberg.

Bulletin of the Metropolitan Museum of New York, Jan. 1936. The Egyptian Expedition, 1934-35.

Bulletin of the American Schools of Oriental Research, Dec. 1935, Feb. 1936. The Ancient Near East at the Congress of Orientalists in Rome, by W. F. Albright. A Supplement to Jeremiah : The Lachish Ostraca, by W. F. Albright.

The Geographical Review, Jan., 1936. Problems of the Nile Valley, by K. S. Sandford.

The Jewish Quarterly Review, Jan., 1936, XXVI, 3. Antiphony in Ancient Hebrew Poetry, by I. W. Slotki.

The Journal of the American Oriental Society, 55, 4, Dec. 1935. Notes to recently published Nuzi texts, by E. A. Speiser.

Bulletin de Correspondence Hellénique, 59, I, 1935.

Journal Asiatique, CCXXVI, 2, CCXXVII, 1.

Le Monde Oriental, XXVIII. Zur Frage der Geschichtlichkeit der Exodus-Tradition, by H. Sunden.

Nouvelle Revue Théologique, Jan.-March, 1936.

Revue Biblique, 45, I, Jan. 1936. Le Sceau de Godolias, Maître du Palais, by L. R. de Vaux, O.P.

Syria, XVI, 4. La Deuxième Campagne de Fouilles à Ay (1934), by Judith Marquet-Krause. L'Art Néolithique à Jericho, by J. Garstang.

Archiv für Orientforschung, X, 6. 1936. Sumerian ITU SE.GU (R). KUD, by G. R. Driver.

Orientalistische Literaturzeitung, Jan.-March, 1936. Reviews of A. Lods, Les Prophètes d'Israel et les Débuts du Judaisme,

by O. Eissfeldt ; E. L. Sukenik, Ancient Synagogues in Palestine and Greece, by C. Watzinger ; A. H. Gardiner, The Attitude of the Ancient Egyptians to Death and the Dead, by J. Spiegel.

Zeitschrift der Deutschen Morgenlandischen Gesellschaft, 14, 3-4. Die Keilschrifttexte vom Ras šamra und das Alte Testament, by A. Jirku.

Bible Lands, Jan. 1936.

Bulletin of the Jewish Palestine Exploration Society, III, 3, Oct., 1935. The Excavations at Ai, J. Marquet-Krause ; Observations on the Lachish Documents, by H. L. Ginsberg.

Al-Mashriq, XXXIII, 4.

Leshonenu, I, 1.

The Ras Shamra Mythological Texts, by J. A. Montgomery and Z. S. Harris.

Comparative Statement of Rainfall at Stations in Palestine for Period June to October, 1935, Department of Agriculture and Forests.

Konrad Miller's Lifework, by T. Borodajkewycz.

Discoveries in Iraq, 1933-4, Fourth Preliminary Report of the Iraq Expedition, by H. Frankfort. Oriental Institute of Chicago Communications, No. 19.

The Smithsonian Institution, Annual Report for 1934.

Explorations in Eastern Palestine, II, by N. Glueck. Annual of the American Schools of Oriental Research, Vol. XV.

The Jews in Italy, by Sozius.

Mosaic Pavements in Palestine, by M. Avi-Yonah. Reprint from the QUARTERLY of the Department of Antiquities in Palestine.

Excavations at Tell Abu Hawam, by R. W. Hamilton. Reprint as above.

Les Monuments Mégalithiques de Palestine, by M. Stekelis.

Material Remains of the Megiddo Cult, by H. G. May and R. M. Engberg.

Excavations at Tepe Gawra, by E. A. Speiser.

Bien avant les Phéniciens, by A. Bergy.

Opgravingen in Palestina, by Dr. J. Simons, S.J.

British School of Archaeology in Jerusalem

Report for the Season, 1934-35

The Council has to report a year of steady work on the customary lines, and appeals confidently to the subscribers for the continuance of their support.

Thanks to grants of £1,000 from the British Academy, and £100 from the Palestine Exploration Fund, to the Joint Samaria Accounts, and further contributions amounting to £101 16*s.* 6*d.*, through the accounts of the School, the School was enabled to continue the excavations at Samaria on the lines indicated in the last Report. At S'baita the Colt Expedition completed a second year's programme, and at Bosra the work begun by the Director in 1934 was brought to a successful conclusion. The latter work was made possible by a contribution from the Director himself.

In Jerusalem there are to be recorded only two minor changes affecting the property of the School. The store-room in the French Archæological School, which we have leased from the Dominican Fathers for the last few years, proved inadequate to accommodate the equipment of Miss Garrod's Prehistoric Expedition in addition to the other effects of the School, although the Samaria equipment, which includes much of the School property, is still in Sebastia, and a second store-room has been most kindly placed at our disposal by the Dominican Fathers. Secondly, an inventory of the School Library has been taken, and a new slip catalogue prepared, by Mrs. Starr who was engaged on similar work in the American School.

The School received a very welcome visit last March from one of our Trustees, Sir Charles Close, who is also Chairman of the Palestine Exploration Fund.

The Director left England early in November intending to spend a few days in Greece to study the relation of the Hellenistic and Early Roman wares which have been found in Samaria with contemporary wares in Athens and Samos. Interesting parallels were found, but an unfortunate accident obliged the

Director to stay in Samos for nearly a fortnight, and it was not until the end of the month that he reached Jerusalem.

The next three months were devoted mainly to preparing for the final publication of the churches at Jerash, on which a preliminary report was issued as a Supplementary Paper by the School in 1931. The final publication will be issued by Yale University in a volume, or volumes, dealing with all the excavations which have been conducted by the University during the last eight years at Jerash in cooperation partly with the British School, partly with the American School of Oriental Research in Jerusalem. By great good fortune, Professor C. H. Kraeling, the editor of the volume, happened to be in Jerusalem last year as Annual Professor in the American School, and our share of the work proceeded therefore, under the happiest auspices. The volume will contain also a contribution by Mr. A. H. M. Jones, who was a student of the School in 1928 and 1929, on the inscriptions which were found while the British School was working at Jerash.

Visits were paid to Petra, Jericho, S'baita and Akaba, and in the beginning of March the Director had the pleasure of accompanying Sir Charles Close to Samaria and Tell ed-Duweir. On March 9 he left Jerusalem for Bosra in the company of Mr. A. H. Detweiler, who has been for the last few years architect to the Yale-American School Expedition at Jerash. The Director returned to Jerusalem on March 30, revisited S'baita on April 4, and left Jerusalem for Samaria on the 6th, remaining there, with occasional visits to Jerusalem, until July 19. Official business, which included the division with the Department of Antiquities of the finds made by the School at Samaria and those made by the Palestine Exploration Fund at Gezer, occupied the next three weeks, and he did not leave Jerusalem until August 11.

A lecture on the discoveries made at Bosra was given by the Director in the French Archæological School before the Palestine Oriental Society on April 25.

Samaria.—A detailed report on the work of the season has already appeared in the October number of the QUARTERLY

STATEMENT AND BULLETIN, and it will be sufficient to summarise the principal results.

The great circular tower was again examined. This had been tentatively assigned to the time of Jeroboam II., but a sounding in the interior proved that it belonged to the early Hellenistic period. When it was built, one of the Israelite city walls was still standing, and we uncovered to the west of the tower a fine section of this wall, which had been incorporated in the new Hellenistic fortifications. There were manifest traces of reconstruction in this section, which may be due to Sargon II. who mentions the rebuilding of Samaria on two inscriptions.

Behind this tower we found the north-east corner of the main " Palace Enclosure " walls, and further to the west, close to the find-spot of the ivories, fresh evidence as to the date and history of these walls came to light. It appears tolerably certain that they belong to the time of Ahab. The remains of this complex which have been discovered in successive seasons by our expedition proves that it was incomparably the finest construction of the period that has been found anywhere in Palestine.

Several more fragments of ivory were found but only one of these contained a new motive. A more instructive discovery was that of some Greek geometrical potsherds which seem to point to commercial intercourse between Greece and Samaria somewhere about the year 800 B.C.

In another field, close to the great Israelite wall which was excavated in 1931 near the threshing floors, a fragment in the local limestone of an early Israelite inscription was found. The letters are cut with a delicacy to which there is no known parallel, and the fragment obviously comes from an official stela, but only three letters have been preserved.

Dr. and Mrs. Ben-Dor, Miss Kathleen Kenyon, Mr. A. H. Detweiler, Mrs. Crowfoot and Miss Diana Crowfoot were with the Director throughout the season : Dr. Sukenik visited us from time to time, as did Mr. Avigad (Reiss) who again acted as draughtsman. Mrs. Lake, who happened to be in Jerusalem,

kindly took charge of the Rhodian jar handles which were found in the course of the work.

Bosra.—In 1934, as explained in last year's report, various soundings were made in the cathedral at Bosra in the hope of discovering how the dome was originally carried. These soundings were made in the south and west sides of the interior of the building, but they did not yield the desired information, and it was proposed accordingly to make a more extensive sounding in the north-east quadrant on the chance that more might be left there. The results were surprising. All recent reconstructions of the church have rested upon the assumed existence of the base of a pillar which Mr. H. C. Butler claimed to have seen in the north-east quadrant opposite to the north wall of the chancel. We dug all round the supposed site of this base and found that Mr. Butler was mistaken and that there never had been any such base in that position. All previous reconstructions are therefore without foundation. Further west, however, under the north wall of the later basilica, which was built in line with the north wall of the chancel, we found three courses of a Γ shaped pier of excellent construction which had obviously been one of the corner supports of a central dome or lantern : the dome or lantern would have measured about 12.4 metres in diameter and some voussoirs from an arch with a span of about twelve metres were found near by.

A second discovery showed that originally semi-circular colonnades stood on each side of the square formed by these piers. The evidence for this was a line of stones running to the east in a curve from the foundational courses of the pier. This curving line ran under the wall of the later church, and we followed it as far as the medial line of the cathedral : in two places on this segment it was interrupted by the pedestals of columns, and one pedestal (which had been re-used in the later church to carry a column) was still in position. On the north side of the angle pier, one stone of a similar curving line was found still in position, and when the details were plotted on our plan, it was seen that the base on the south side of the church which had puzzled us so

much in 1934 was part of a similar colonnade on that side.

The arrangement of the internal supports of the roof, which has been the subject of so much ingenious speculation, is therefore now known : they were arranged in the form of a great quatrefoil composed of a central square with semi-circular colonnades projecting from each face.

The plan thus reconstructed appears to be a rare if not unique combination of two more familiar elements. There are several examples of a circle or octagon inscribed in a rectangle with exedrae and niches like those in the cathedral : a room in the baths near the theatre at Bosra offers an earlier instance on a small scale. Similarly the way in which the internal supports are grouped is not difficult to parallel ; somewhat similar arrangements may be seen in the church at Athens in Hadrian's Stoa, in the church of St. Lorenzo at Milan, and in one of the churches at Rusafa, but in such buildings the line of the outer walls conforms usually to the internal arrangement.

The Director was accompanied at Bosra by Mr. A. H. Detweiler and Miss Diana Crowfoot.

S'baita.—The lecture given by Mr. Colin Baly at the Annual Meeting of the Palestine Exploration Fund (which has been printed in the October number of the QUARTERLY STATEMENT AND BULLETIN) has described the work of the last two seasons. As Mr. Baly has pointed out, the long existence of the settlement before and after the sixth century A.D. is in some ways the most novel result of these researches. It is a result which will contribute materially to the revision of the history of Southern Palestine during the first millennium of our era. It also makes the excavation of the site a more complicated matter than was originally anticipated, and the various changes which were made in the plans of both the north and south churches, but especially the latter, are difficult to unravel. It is to be hoped that the work in the central church which is contemplated in the coming season will throw more light on the problems involved.

Mr. Colt was assisted by Mr. Baly, Mr. Upton Way, Mr. and Mrs. Irving Brown and Mr. D. Brown.

Students.—Miss Kathleen Kenyon was again in charge of the principal field-work at Samaria, and on her way home seized the opportunity of examining the famous Samaria ostraca in the Museum at Constantinople. We offer our congratulations to Miss Kenyon on her appointment as Secretary of the new Institute of Archæology in London University.

Dr. A. N. Honeyman (Glasgow and Chicago) spent the winter in Palestine, visiting sites and studying modern Hebrew and Arabic. He prepared a paper on the Biblical references to pots and pot-making, which will, it is hoped, be shortly published.

Miss Joan Crowfoot was engaged for about five months on cataloguing the flints in the Palestine Government Museum. She finished some 8,000 flints, about half the collection, in this time, and also spent a fortnight or so at Jericho working on the flints found there by the Marston Expedition.

Mr. Upton Way and Mr. Colin Baly, as already mentioned, were working under Mr. Colt at S'baita.

Two students of the School, Mr. C. H. Inge and Miss Eleanor Dyott, were members of the Wellcome Expedition at Tell ed-Duweir.

Two other students, Miss Garrod and Lieut.-Commander A. G. Buchanan, also paid short visits to Palestine.

Resignation of the Director.—The Council announces with regret the resignation of the Director, Mr. J. W. Crowfoot, C.B.E., F.S.A., after eight years of distinguished and devoted service to the School. Through his administrative experience, and his wide scholarship and range of interests, the School has been enabled to maintain, in difficult circumstances, a fine record of research, and a very satisfactory number of students. His direction of the joint enterprises of the School, at Jerash, with Yale University, and at Samaria with the British Academy, Palestine Exploration Fund, Harvard University, and the Hebrew University of Jerusalem has resulted in notable dis-

coveries, and offered exceptional opportunities for training in field work to a succession of keen and competent students. Throughout his Directorship the relations of the School with the Department of Antiquities and with other research institutions have been uniformly cordial. The Library has been transferred to its present quarters, and made accessible and useful. The open meetings have been well attended, and the work of the School has been made generally known and valued. The Council has expressed to Mr. Crowfoot, on behalf of the subscribers, its high appreciation of his services to the School, and to archæological studies in Palestine generally. To Mrs. Crowfoot, also, the School is deeply indebted both for contributions to the archæology and the historical botany of Palestine, for her management of successive excavation-camps, and for her hospitable welcome to students and friends of the School.

As Director for the year ending September 30, 1936, the Council has appointed Mr. P. L. O. Guy, who was formerly Chief Inspector of Antiquities, and for some years directed the American excavation at Megiddo. His long experience of field work in Palestine should be of great service to the School, especially in connection with the topographical studies incidental to the projected Archæological Survey.

Publications.—The QUARTERLY STATEMENT of the Palestine Exploration Fund, which incorporates the BULLETIN of the School, included the following articles on the work of the School during the past year :—

January 1935. *Report of the Annual Meeting of the British School of Archæology in Jerusalem.*

October, 1935. *S'baita.* By COLIN BALY.
Report of the 1935 *Samaria Excavations.* By J. W. CROWFOOT.

In the *Bulletin of the American School of Prehistoric Research* Miss D. A. E. Garrod has published an account of her *Excavations in the Mugharat-et-Tabun,* 1934.

Duplicate Finds.—Distributions have been made during the year to Museums in London, Manchester, Newbury, Oxford, Lancing College ; Montreal, Toronto ; Jerusalem ; Berlin, Bern, Brussels, Budapest, Copenhagen, Madrid, Paris, Rome, Vienna. All subscribing institutions and societies are entitled to participate in these distributions.

The Council of the School records with deep regert, the death of Mr. J. E. Quibell, who was at one time Keeper of the National Museum of Antiquities, Cairo, a post from which he retired in 1925. Mr. Quibell joined the Council of the School in 1928, and fulfilled the office of Hon. Auditor until 1931. For the past four years he had spent the winter in Egypt, digging at Saqqara.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM

Annual General Meeting.

The Annual General Meeting of the British School of Archæology in Jerusalem was held at the rooms of the British Academy, Burlington Gardens, London, W.1, on Wednesday, January 15, 1936. The President, Sir Frederick Kenyon, presided at the Business Meeting of Subscribers. At the Open Public Meeting, the Chair was taken by Professor Stanley A. Cook, Litt.D., University of Cambridge, who delivered an address entitled "What Archæology is doing for the Bible." Mr. J. W. Crowfoot, late Director of the School, described the "Excavations at Samaria" and other activities of the School during 1934-35.

Minutes

The Minutes of the Annual Meeting held on October 18, 1934, were read and signed as correct.

Annual Report and Statement of Accounts

The President submitted the Fifteenth Annual Report and Accounts for the year 1934-35, as circulated, and invited criticism or comment from subscribers.

The Report and Accounts were adopted, without comment.

Election of Officers and Council

Professor J. L. Myres (*Hon. Secretary*) explained that the members of Council due to retire in October, 1934, were Sir Arthur Keith, Dr. Masterman, Canon Phythian-Adams and Mr. J. E. Quibell. Unfortunately, Mr. Quibell has died. Sir Arthur Keith was now living in the country, and though his interest in the School was unabated, he was not able to undertake to attend the meetings of Council. The Council suggested that in place of those two members the Lord Bishop of Rochester and Mr. Sidney Smith, already co-opted by Council, should be asked to act as ordinary members of Council for three years.

On the motion of Mr. W. H. Boulton, seconded by Mr. Hyamson, the Officers were reappointed and Dr. W. G. Masterman, Canon Phythian-Adams, the Bishop of Rochester and Mr. Sidney Smith were elected members of Council.

Election of Auditors

The President said that Mr. W. A. Buchanan was unable to continue his services as Auditor, and proposed that Mr. Hyamson and Dr. Masterman, be appointed Auditors for the ensuing year.

This was carried unanimously.

Resignation of Director

Professor J. L. Myres, referring to the resignation of the Director of the School, Mr. J. W. Crowfoot, said that all connected with the School owed him an enormous debt of gratitude for his activities during the eight years of his directorate. Mr. Crowfoot had conducted a series of most important excavations for the School itself, for the Palestine Exploration Fund, and also in conjunction with other bodies, particularly, during the last four years, with the British Academy, the Palestine Exploration Fund, Harvard University and the Hebrew University of Jerusalem, at Samaria. Mr. Crowfoot had, moreover, enabled the School to justify its claim to be a school in the sense of a place of organized study as well as an instrument of archæological research. He had represented the School and established its position in the archæological world of Palestine in a way which no one connected with the School could ever forget. (Applause.) It was felt that, in parting with Mr. Crowfoot as Director, subscribers would wish to express to him most hearty thanks for all he had done, and at the same time, express the hope that now he was to remain at home his interest in the School would not diminish, but that it might take other forms.

Professor Myres, speaking on behalf of the Council and Subscribers, paid a tribute also to the help given by Mrs. Crowfoot. Apart from her own branches of study, as revealed in her books and papers in various learned journals, Mrs. Crowfoot had

helped in a multitude of ways in the School's social activities in Jerusalem, and in the excavation camps. Those who had had anything to do with the School's excavations would fully appreciate all that that meant. Subscribers would desire to express their gratitude and deep sense of the value of the help given by Mrs. Crowfoot. (Applause.)

The Council, after careful consideration, had invited Mr. P. L. O. Guy, formerly a member of the Staff of the Department of Antiquities in Palestine, and one who had had considerable excavation experience with other bodies, to undertake the Directorship of the School for the current year. Mr. Guy had accepted the appointment and had already made a valuable report on the Library, and the School's other property in Jerusalem. He was also taking an active part in the general archæological life in Jerusalem.

It had not been possible to make an appointment for more than the current year because there had been, between the Council of the British School of Archæology in Jerusalem and the Committee of the Palestine Exploration Fund, discussion and careful consideration of a project which arose out of a suggestion by Sir Charles Close, Chairman of the Palestine Exploration Fund, that the two institutions should collaborate in producing an archæological survey of Palestine. The project had been submitted to the Government of Palestine and to the Colonial Office, and was believed to be receiving favourable consideration. The object was to produce an archæological edition of the sheets of the regular Ordnance Survey map of Palestine, showing by symbols and descriptive commentary, the various kinds of sites, the periods to which they belonged, and so forth. The scale would be that of the sheets of the 1/100,000 official map of Palestine. If undertaken, that piece of work would probably absorb the principal energies and resources of the School and the Palestine Exploration Fund for a period of years. It had been agreed between the two institutions that when the Survey became operative, the Director of the Survey and of the British School of Archæology in Jerusalem

should be the same person. Hence all it had been possible to do this year was to ask Mr. Guy to devote a considerable part of his time to preparatory studies and reports, as to the organisation and scope of the work of the proposed archæological survey.

Most of the students of the School were at present working under Mr. Colin Baly at S'baita, in the extreme south, a late Roman site in surprisingly good preservation. No great modern city being near it, there had been comparatively little spoliation. This was the third season of Mr. Colt's Archæological Expedition at S'baita. The School had not only sponsored that work, obtained the permit and so forth, and inspected progress from time to time, but it had now accepted Mr. Colt's staff as students of the School.

The President, in putting to the meeting the proposition that a very hearty vote of thanks be accorded to Mr. and Mrs. Crowfoot, endorsed all that Professor Myres had said as to the value of the services rendered by the Director, and the help given by Mrs. Crowfoot in all the work of the School.

The vote of thanks was most heartily accorded, and the Open Meeting of Subscribers and friends followed. Professor Stanley A. Cook, Litt.D., F.B.A., presiding.

"What Archæology is Doing for the Bible"

Professor Stanley Cook, in delivering an address on the above subject, said:

Professor Stanley Cook's Address

Ladies and Gentlemen: I highly appreciate the honour you have conferred upon me this afternoon in asking me to preside over this, the Fifteenth Annual General Meeting of the British School of Archæology in Jerusalem. But at the outset I am afraid I have to confess that I hardly deserve to occupy this Chair today, as my actual knowledge of Palestine itself is of the slightest. I have always been what is often called an "arm-chair" student, and can boast only of a short

visit in 1931. Still, a visit late in life is perhaps worth many visits when one has read relatively little about the land. There are some books all letterpress, and you long for a few illustrations; and there are books with innumerable illustrations, but there is not enough letterpress. They do not tell you enough about them to enable you to appreciate the pictures fully. Is this not also true of Palestine? You may know the land from within, but little of its history; or you may have spent years working at the land—in your study—but you need maps, photographs, and above all, an actual visit before you can begin to profit fully from what you have read. It is one of the objects of the British School to bring closer together the land and those of us who are not fortunate enough to know it personally, it is its aim to combine illustrative material and letterpress, to collect archæological evidence, and to interpret it.

Perhaps I have had exceptional opportunities of reading about the land. It was in 1902, about thirty-four years ago. that I began to act as editor of the QUARTERLY STATEMENT of the P.E.F., and I had some thirty years of extremely congenial though often rather strenuous work. I should like to seize this opportunity to say how much I owe to that unique experience and to the close and friendly relations with such splendid men and advisers, as Sir Charles Wilson, Sir Charles Watson, Mr. Crace—to mention no more—quarter by quarter. I was brought into touch with the progress of excavation, and had to strive to keep abreast of the British and foreign literature that reached the office of the Fund. I owe a great deal to those happy years.

Looking back, I—like everybody else—cannot fail to be struck by the enormous advances that have been made during this century. I well recall the thrills we had as Professor R. A. S. Macalister, excavating Gezer, periodically reported something sensational, some remarkable cave, some new type of skeleton, the High-Place or the Tunnel. There have, of course, been other no less remarkable sites:—Beth-Shan, and now Tell ed-Duweir, but I am bound to confess that, perhaps for purely personal and sentimental reasons, to me Gezer is always the site *par excellence.*

Father Vincent's book in 1907 laid the foundations of Palestinian archæology as a science. Driver's Schweich Lectures in 1908 on "Modern Research as illustrating the Bible" were another land-mark. Especially since the war a really immense amount of work has been done in exploring and excavating Palestine. As you know, the British School of Archæology in Jerusalem was established in 1919, it began work in 1920, and in 1929 the School and the P.E.F. entered into an alliance. You have only to look at a map of sites excavated[1] to realise that Palestinian research is a "whole-time job," requiring devotion and self-sacrifice on the part of the worker, and deserving far more financial support than it gets. I am not unmindful of the generous benefactors of the past and of today, but I do wish to make a very special appeal on behalf of the School in Jerusalem, so that it may carry on—if possible on a larger scale—the various labours which it is ready and well-equipped to undertake.

Here at once the question arises, *Cui bono*? What do we gain from all these archæological researches? It is true that from time to time the expert has to revise his opinions; there is no finality in this or in any other work. In science you can make crucial experiments to test your theories, but with us, we can only test how far each new significant discovery affects the knowledge already accumulated. And we can say that although there is much that is problematical, we are building up a great body of facts, of positive information.

In archæology nothing is "common," nothing unimportant. The presence or absence of bronze or iron, the lamps, the shape of the bricks, the designs on pottery, or frescoes or coins; pottery patterns, the texture of the clay—and now most recent of all, modern police methods have been applied to the finger-prints on jars[2]. Besides the obvious spectacular results

1. See, *e.g.*, the map in the QUARTERLY STATEMENT, 1932, p. 220. Since then several other sites have been examined or excavated.

2. QUARTERLY STATEMENT, 1935, p. 3. At Tell en-Nasbeh it is said that the finger-prints show that some of the vessels found at different levels were not of different periods, but were made by the same hand.

—an inscription, or shrine—the accumulation of what may seem to be unimportant and uninteresting constantly leads to results, not necessarily sensational, but none the less solid and permanent.

How does all this bear upon the Bible? There cannot be many people who are not really interested in the Bible; but one must admit that there are not a few to whom the Old Testament means little. On the one hand, there is wide interest in matters of religion; but on the other, there is less practical or effective enthusiasm for archæological work in Bible-lands. Yet all this work on Palestine and the Bible is an integral part of the world of modern research and learning. You may be interested in archæology, folk-lore, comparative religion, anthropology, or history, and if so, you cannot ignore the Bible and Palestine. Whatever be the *popular* attitude, so long as there is learning and culture the Bible remains an organic part of the great body of modern knowledge The world of learning, at all events, can no more be indifferent to it than the man who is interested in geology can ignore Palestine and the Bible-lands.

It is true that there are difficult Biblical problems, but just because scholars are aiming at gaining sound and tested knowledge, the value of the Bible is being restated and placed in a new framework. And this is being more widely recognised. The archæology of Palestine unites men of all faiths and shades of thought; need I do more than mention the Dominican School at Jerusalem, and the Hebrew University more recently established there? And here I may refer to an article in a work published by the Pontifical Institute at Rome on our knowledge of the vast antiquity of man in Palestine[1]. It makes the point that one should acquaint oneself with what is being done and written on this subject; for the antiquity of the human race is one problem, and that of the dawn and history of man's religion is quite another. I wish to emphasise the fact that though we may all differ over many very important questions, we are united in the value we attach to these archæological researches, and it is agreed that the archæological evidence is of essential

1. R. Köppel, in *Miscellanea Biblica*, i. 299-316.

and independent importance. Here is the common meeting-ground of men of all shades of belief.

I shall now briefly expand what I have been saying by a few illustrative remarks. The history of Palestine goes back to the remotest times, and on geological grounds it would seem that an area on the west side of the Dead Sea was one of the most ancient of islands to emerge.[1] This in itself is interesting. Next, everyone knows of the great rift running down through the Jordan Valley and extending into East Africa. But although there are rift valleys all over the world, this is one of the most promising areas for geological study.[2] Thus Palestine arrests us at the very beginning of its history as a land.

We speak of Palestine as a meeting-place of continents, peoples and cultures ; but it is also the meeting-place of two waves of flora and fauna. The one is typical of Europe and Northern Asia, the other is from the South, it is " a tongue of Africa," penetrating northwards. Little is known on the subject, but we are assured that " the Huleh basin, with its vast area of virgin swamp and marsh, should give us valuable evidence."[3] Here again we are directed to Palestine.

For the study of the antiquity of man Palestine has been proving itself an exceptionally important area ; it has revealed a new type, *Palæanthropus Palestinus*.[4] Interesting questions arise as to the ethnological connections between similar cultures in Palestine, Europe, Asia and Africa. Palestinian caves have told us something of the days, not only of the elephant, but of the rhinoceros and hippopotamus. And sometimes, as at the Wady el-Mughara, the evidence seems to point to " a great contrast with the Palestinian landscape of today."[5] Prehistoric rock-drawings and paintings add to the material[6] ; and we are learning that Palestinian man had a rudimentary

1. Quarterly Statement, 1931, p. 197.
2. *ib.* p. 199.
3. Colonel Meinertzhagen, Quarterly Statement, 1935, p. 208.
4. *Journal of the Royal Anthropological Institute*, Vol. LXII.
5. Quarterly Statement, 1933, p. 181 ; 1934, p. 85 *sqq.* ; 1935, p. 9.
6. Quarterly Statement, 1933, pp. 2, 171.

culture of his own long, long before the land enters into the light of continuous history.

I must pass over the dolmen necropolis in Galilee[1] and the evidence for the interrelations among the Mediterranean peoples. Nor can I do more than refer to the remarkable discoveries made by the French in Syria, first at Byblus and more recently at Ras Shamra. In Palestine almost every newly excavated site testifies to the antiquity of settled life—Gezer, Jericho, Megiddo, Beth-Shan, Jerusalem—there are many places now that could lay claim to be " half as old as time." Almost every site has its peculiar problems, but also its peculiar contribution. Beit Mirsim, for example, has proved of special value for its clear stratification, and for the light it threw upon " Philistine " pottery.[2] In another case, the technique of the early monuments at Ha'ay, Rabbath Ammon and Tell ed-Duweir, has raised the question of the earliest connections between the Jordan Valley and the maritime plain.[3]

Between Jericho and Beth-Shan many instructive parallel developments have been found, and Professor Garstang, from an exhaustive study of the lamps at Jericho, was able to make a suggestive contribution to our theories of archæological development.[4] Besides parallels there are, everywhere, regional differences, and this fact is instructive, both for archæology and sociology; for we may well ask, if there are regional differences in the field of archæology, might there not also be regional differences as regards custom, belief and ritual? May we not have too rigid a conception of development? Professor Garstang found at Jericho that the round and the flat-bottomed lamps developed simultaneously, may it not also happen that beliefs or customs which we are tempted to arrange in an evolutionary order really were simultaneous?[5]

1. Quarterly Statement, 1931, p. 155.
2. Quarterly Statement, 1933, p. 51 n.
3. S. Yeivin in Quarterly Statement, 1934, pp. 189-191.
4. Quarterly Statement, 1935, p. 64.
5. He adds, (*loc. cit.*) that " on the whole, the general development of culture and the sequence of phases illustrated by the lamps, falls within the framework already established by scholars who have kept abreast with the remarkable progress of excavation in Palestine, during the last decade."

The problems of the Israelite invasion are still keenly discussed. A transition of culture can be followed clearly in some sites, *e.g.*, Ain Shems (QUARTERLY STATEMENT, 1933, p. 105 seq) ; and at Beth-Shan the development of the temples present some interesting features.[1] Palestine in the Hyksos period was culturally rich, but there are several indications of destructive attacks shortly after.[2] At Jericho the older cultural life seems to end abruptly, and there is a gap.[3] But a few centuries later there are signs that the city was definitely occupied.[4] In fact, about the same date, *viz.* the middle of the thirteenth century B.C., there appears to be archæological evidence for the fall of Bethel, some destruction at Tell ed-Duweir (Lachish), and the conquest of a large part of the Shephelah. Three changes: a new settlement, the advent of the Philistines and the beginning of the Iron Age, combine to mark the years round about 1250-1100.[5] The whole period, say, 1450-1100, is a conspicuous landmark in the external and internal history of Palestine.

East of the Jordan, too, there have been interesting results. The remarkable slab from Balua, north of Kerak, if inscribed at the head, is unfortunately undecipherable.[6] But it is a very curious fact that at this and several other Moabite sites the excavators report a blank between Middle Bronze I and Early Iron I, say, from the eighteenth to the thirteenth century.[7] Thenceforth, both Edom and Moab appear to have been continuously occupied. "Dr. Glueck has stressed the bearing which the date of the beginning of the Edomite-Moabite culture has on the date of the Exodus."[8] Further investigation will no doubt throw more light on this period.

1. See Rowe and Vincent, in QUARTERLY STATEMENT, 1931, pp. 12 *sqq.*; and FitzGerald, p. 69 *seq.*
2. Albright in QUARTERLY STATEMENT, 1930, p. 219.
3. QUARTERLY STATEMENT, 1935, p. 67.
4. QUARTERLY STATEMENT, 1932, p. 153.
5. See Starkey, QUARTERLY STATEMENT, 1934, p. 174 and Albright 1935, p. 105 *seq.*
6. See Professor Crowfoot in QUARTERLY STATEMENT, 1934, p. 76 *sqq.*
7. QUARTERLY STATEMENT, 1934, pp. 78, 83.
8. QUARTERLY STATEMENT, 1935, p. 11. The evidence is indeed striking, see Sir Charles Marston, *The Bible is True*, p. 175 *seq.*

Coming down later, we all know that at Megiddo, Tell el-Hesy, and elsewhere, stables have been found, those at Megiddo being large enough to accommodate 300 horses. One naturally thinks of Solomon's trading activities (I Kings, x. 28 *seq.*), unfortunately at present archæology has not allowed us to illustrate the great days of David and Solomon as we should like.

Later, for the dynasties of Omri and of Jehu we turn to Samaria where highly successful results have been achieved by the expedition under the auspices of the British School in conjunction with other bodies. We are to hear of the more recent results at the end of this address so I will pass on and refer to Tell ed-Duweir, which, as you will remember, is now identified with the ancient Lachish. It is a fine mound, admirably situated, and has proved of outstanding importance for its many varied "finds," ranging from the helmets of Sennacherib's soldiers to remarkable epigraphical puzzles, and extraordinarily interesting Hebrew ostraka.[1] An Israelite seal bearing the name Shebna, found there, naturally reminds us of the fact that the Shebna of II Kings xviii, 18, etc., was a contemporary of Sennacherib.[2]

But when we descend to a century later, the Biblical contacts multiply. The Lachish ostraka contain correspondence of the time of Jeremiah and Nebuchadrezzar, and we eagerly await their publication. The discovery of a seal inscribed, "Gedaliah who is over the house," at once recalls the governor whom Nebuchadrezzar placed in charge of Judah after the fall of Jerusalem.[3] And *apropos* of this, I may remind you of the cisterns found at Tell en-Nasbeh (Mizpah); they are of the same period, and you will recall the fate of Gedaliah and his followers whom Ishmael, the son of Nethaniah, slew and cast into a pit at or near Mizpah (Jer. xli, 7).[4]

1. See Starkey, QUARTERLY STATEMENT, 1933, pp. 190 *sqq.*; 1934, pp. 164 *sqq.*; 1933, pp. 104, 198 *sqq.*

2. The seal also names a certain Ahab, see QUARTERLY STATEMENT, 1934, p. 97.

3. QUARTERLY STATEMENT, 1935, pp. 204 *sqq.*

4. QUARTERLY STATEMENT, 1932, p. 206. Incidentally, I may add that Professor Badé has recently reported that at Mizpah a Temple to the Goddess Asherah, and another to Yahweh, appear to have existed side by side even in the days of the Monarchy. (From the *Theologische Blätter*, October 1935, Col. 242.)

Moreover, jar-handles bearing the name of Eliakim the steward of Jehoiachin have been found, two at Beit Mirsim, and one at Beth-Shemesh.[1] Professor Albright, in discussing these, remarks that "many of the sites representing pre-exilic towns of Judah exhibit a destruction, generally without later occupation, nearer 600 than 700 B.C."[2] "That is to say, the archæological evidence, as he thinks, shows that Judah must have been pretty thoroughly devastated by the Chaldæan invaders.

As we descend later to the Greek and Roman periods it is Samaria above all that has furnished splendid examples of the art and architecture. Valuable additions have been made to the picture we are forming of the Greco-Roman civilisation, in both Palestine and Transjordan. You will also be glad to learn that the final account of the work at Jerash is being taken in hand by Yale University, which, in cooperation with the British and American Schools at Jerusalem, have conducted the Expedition.

The work at Khirbet Fahil, or Pella and its neighbourhood interests us because this was an early centre of Primitive Christianity, but in general few traces of the young religion are to be found until about the time of Constantine.[3] Bosra is famous for the ruins of its church; further discoveries of architectural importance have been made there, and a summary of them is given in the Annual Report.[4]

Work in the South of Palestine has brought further evidence of the former fertility of a region which is now desolate. S'baita, for example, the ruins of which present some noteworthy architectural details, must once have had a population of about 10,000.[5] Apart from the questions raised by such facts, mention should be made of the discovery there of a certain Arab pottery

1. Albright, *Journal of Bible Literature*, LI (1932), p. 102; the last name is actually spelt יוכן.

2. The point is that in his opinion the destruction cannot be identified with the invasion of Sennacherib at the earlier date.

3. Quarterly Statement, 1934, p. 18 *seq.*, *cf.* 1935, p. 139.

4. See pp. 62-3.

5. Quarterly Statement, 1935, pp. 171 *sqq.*, *cf.* also p. 16 *seq.*

type of about the twelfth century A.D., for this type "seems to be widespread in the Islamic world." This is worth remembering, for whenever we are discussing the wide distribution of objects at much more remote periods, it is always helpful to consider the sort of process that will account for their range: migration, conquest, trade, slow infiltration, etc.

I must not omit to refer, in passing, to our growing knowledge of the Jewish Synagogues in North Palestine. The zodiac and other mosaics, and the often noteworthy cult, floral and animal symbols, throw most interesting light upon the Jewish attitude to art, and the objects that met their eyes, and often occupied their thoughts.

The work of archæology consists both in the search after new material and in the interpretation of both new and old. Each helps the other. Fresh steps are constantly being taken, fresh enquiries opened up. For example, the famous British Museum coin inscribed with the name Yahu has long been known; it is now being suggested that it is not the divine name, but the province of Jehud, *i.e.*, Judah.[1] The ostraka, found years ago at Samaria still give scholars plenty to work upon; and within the last week I have read an article showing how Macalister's discovery at Gezer, of objects of the Assyrian and Persian periods, illustrates the political and social history of that coastland region of lower Palestine.[2]

The bearing of Archæology upon the Bible is direct and indirect. There is abundant direct illustrative evidence, *e.g.*, for the nature of the old cults, the daily life, economic con-

1. *cf.* QUARTERLY STATEMENT, 1936, p. 34 and the references.—[Additional Note. Dr. Sukenik's reading Y-h-d for Y-h-w (Yahu or the like) is certainly plausible, and has convinced several authorities (*e.g.*, Albright, Dussaud and Sellin). But that a coin should bear the name of a province—and spelt in such a way !—needs more justification than it has as yet received. Or was there a god *Yehud* (or the like)? Compare on quite independent grounds, Nyberg, *Hoseabuche* (Uppsala, 1935), p. 77, who cites the names Abihud and Ammihud. On the other hand, can one say that the script on the coin must be *either* Phoenician *or* Aramaic? Mixed forms might be expected in South Palestine. The *waw* is wont to have a variety of forms (see QUARTERLY STATEMENT, 1925, p. 91); and to judge from Dr. Sukenik's remarks (QUARTERLY STATEMENT, p. 37, end of article), Palestinian epigraphy may be a law unto itself. As regards the sign resembling an archaic teth (*ib.*), it seems to occur also in Punic (*Comptes Rendus, Acad.*, 1909, p. 1,000).]

2. Galling, *Palästinajahrbuch*, XXXI, pp. 75—93.

ditions, and so forth ; and the indirect evidence serves to form the canvas upon which the picture of Palestine is being painted. For a good picture one needs good canvas to start with, one needs a canvas that shall last. It is easier to alter a picture than the canvas, and Archæology provides permanent material which is giving us the background and framework of the Bible.

The Bible grew up in a land which influenced other lands, and was influenced by them. The religion did not arise and develop in isolation ; and when we find—as we so often do—traces of Egyptians, Persians, Greeks and other non-Semitic peoples, we gain a better knowledge of the conditions of life and thought that must have prevailed. The Bible extends over a number of centuries which were marked by certain epoch-making changes. But what are these centuries in the total history of Palestine ? We now know something of the entire history of the land and its neighbours from the remotest pre-historic times. It is not merely Palestine, from Dan to Beer-sheba, that we are recovering, but a far greater complex.

Archæology gives us a new view of the whole sphere of which the Biblical field, in space and time, is only a small, but an integral part. The result is to give the Bible a new reality and worth, inasmuch as we gain a more historical conception of the great drama in human history for which it is our primary source. We pass from the story of the geology of Palestine and its flora and fauna, to prehistoric man, and his rudimentary culture (page 74), and thence in due course we come into the light of continuous history. Our history of man which once started from the early chapters in Genesis, now becomes a cosmic or world-history in which the Bible is more than ever the greatest event.

Professor Cook then introduced Mr. Crowfoot.

The Excavations at Samaria and other Activities of the School during 1934-1935

Mr. J. W. Crowfoot delivered a lecture on the Excavations at Samaria and other Activities of the School. He showed some interesting lantern slides, among them pictures depicting

the supposed construction of the Cathredral at Bosra.

[For the substance of Mr. Crowfoot's address see the issues of the QUARTERLY STATEMENT for Oct. 1935, and Jan. 1936.]

VOTES OF THANKS

THE PRESIDENT, in moving a Vote of Thanks to Professor Stanley Cook, for his address, and to Mr. J. W. Crowfoot, for his lecture, said that Mr. Crowfoot had given a most interesting account of two important pieces of work in which he had been leader. In each case Mr. Crowfoot had shown how necessary it was, in all archæological research, to replace conclusions to which he or others had previously come. That was no reproach to archæology ; it was, in fact, the only way in which to progress. It was, of course, necessary to put some interpretation on facts as one went along, but, at the same time, always to be prepared to verify them in the light of future research. Mr. Crowfoot had as a result of his excavation at Samaria added greatly to the knowledge of that site and had revised some of the work that had been done earlier. If the site was in any respect disappointing, it was that there was little in the way of inscriptions or ornamental material. That was, however, characteristic of much of the work in Palestine, because the country had been so often and so thoroughly sacked by various conquerors. The knowledge that had accrued as a result of Mr. Crowfoot's meticulous work at Samaria would remain valid for archæologists, scholars, Bible students and others to build upon.

At Bosra, again, Mr. Crowfoot had in his later period substituted a new plan for the cathedral on fuller and more accurate evidence, and he had shown an exceedingly interesting reconstruction for which architects and students of architecture would be grateful.

Professor Cook, in the course of his address, had given an illuminating indication of the services which archæology rendered to Bible study by providing a fuller background for the Bible history which, without disturbing reverence for, belief in, and knowledge of the Bible, put it in its proper setting and therefore rendered it more intelligible.

The Vote of Thanks was accorded amid hearty acclamation, and the proceedings terminated with a vote of thanks to the Council of the British Academy for the use of their rooms. This vote of thanks was proposed by Professor Myres, who said that the last supplementary campaign at Samaria had been carried out with the aid of a generous gift from the Schweich Fund, administered by the British Academy.

An Appreciation of the Retiring Director of the British School of Archaeology in Jerusalem.

By W. F. Albright.

It is now nearly sixteen years since the members of the first staff of the British School arrived in Jerusalem, where the writer was one of the members of the American school who welcomed them. For six years Professor John Garstang directed the school most ably, establishing its reputation for serious archæological work on a solid basis. Thanks to the personal union then existing between the school and the Department of Antiquities, it was possible for him to do many things which could not otherwise have been accomplished, in view of the modest resources of the school. In those days the resources of the American school were even more limited, so we were very glad to instal our library in a room in the building shared by the British school and the Department. Five years later we moved our library into our own new building, where we have been so fortunate as to be able to repay the courtesy by housing the library of the British school during the past five years.

The six years of Garstang's administration of the school were thus characterised by a fine spirit of cooperation, which undoubtedly strengthened it greatly. All its friends were sorry to see him resign from the directorship and return to England, feeling that the future was distinctly unfavourable to its successful continuation.

At this dark moment in the history of the British school Mr. J. W. Crowfoot was appointed director. His personality training and experience, made him an ideal man for the post, as was demonstrated abundantly in the following nine years. His academic training lay in the field of classical archæology, and he had directed his attention particularly to the Christian monuments of the Roman Empire. A graduate of Brasenose College, Oxford, student at the British school in Athens for two years (during which he travelled and studied extensively in

Greece, Cyprus, and Asia Minor), classical lecturer at the University of Birmingham, excavator in the Sudan (Meroe, etc.), he never allowed his interest in archæology to flag, in spite of his preoccupation with administrative problems during a period of twenty-five years in Egypt and the Sudan. This is not the place to speak of his successful career in the Ministries of Education in those two countries, where he rose from the rank of Assistant Master in the Cairo Ministry of Education to that of Director of Education in the Sudan, and Principal of Gordon College at Khartoum. The experience of a quarter-century in dealing with administrative problems in the Near East and in handling natives was to prove invaluable in his subsequent archæological career.

To all who know Crowfoot, it was not at all surprising that he should be most unwilling to retire to a quiet life in England after the close of his official career in the Sudan. He was just past fifty, he was blessed with a splendid physical constitution, and he had a passionate interest in archæological field-work, an interest fully shared by Mrs. Crowfoot. It was a fortunate day for the British school when he accepted the Directorship.

The very first archæological enterprise directed by him in Palestine, the 1927 campaign on Ophel, represented a tremendous advance over previous British work on that unattractive site, both in the scientific quality of the work itself and in the caution with which the results were interpreted. It was clear that a new era had begun for the Palestine Exploration Fund.

In his three seasons of work at Jerash, Crowfoot added vastly to our knowledge of the architectural history of the Christian churches of Palestine, and made it possible to date Byzantine mosaic pavements with much more confidence. A by-product of the work at Jerash was, for instance, his demonstration that the basilica at Amwas, which Vincent had dated to the middle of the third century, was actually a structure of the late Byzantine period. The happy relations which existed between the English and American members of this joint expedition (Yale University and the British school) were again largely

due to the Director's remarkable ability to get along with people.

Crowfoot's outstanding achievement in Palestine has certainly been the direction of the three-year joint excavation of Samaria, followed by supplementary work there during the past year. When plans for this elaborate enterprise were under way, with cooperation from five different institutions and three nations, there were not a few outsiders who predicted dire disaster, and who felt that such a hydra-headed monster could hardly exist in a world of hard realities. That it not only existed but even flourished is due to the extraordinary tact, adroitness, and patience of the director, which remain without parallel in the annals of recent archæology. Moreover, this diplomatic feat was accomplished without a ripple on the surface, and with no detriment to the scientific standards of the excavation. The treatment of the many sides of the work at Samaria has been exceedingly good ; architecture, statigraphy, pottery, and objects have all been adequately and competently handled, and no period has been neglected. When the Samaria publication appears, we can be sure that it will be a fine example of what such work ought to be, and that it will be worthy to stand beside the admirable publication of Reisner and Fisher. Numerous refinements in technique are to be expected, especially in dating the masonry, where there will be not a few corrections, and in the detailed treatment of pottery.

Few archæologists have been able to combine their scholarly work so well with social and community life as Crowfoot has done. During his nine years in Palestine he and his wife have enjoyed unusual personal popularity. He has taken part in cooperative scholarly activities, such as the Palestine Oriental Society, and has at the same time been a much appreciated member of the Rotary Club. It is characteristic of the man that he has been president of both organizations.

As head of the American school during five of the nine years in question, and as member of one of its excavation staffs during the remaining years, the writer has been so fortunate as to see

a great deal of Crowfoot. Our association has always been both pleasant and mutually helpful. During this time the two schools have cooperated in many ways and on many occasions. Among them may be mentioned several trips and expeditions in Transjordan, when the schools participated in archæological undertakings which were carried on under the direct auspices of the Department of Antiquities at Amman, whose Adviser, Mr. Horsfield, has long been the friend of both institutions.

Any description of Mr. Crowfoot's work would be incomplete without some reference to Mrs. Crowfoot, who has been his constant companion and collaborator. Besides sharing her husband's personal and social qualities, she is a scholar in her own right, equally distinguished as a student of ancient pottery and of modern crafts. Her studies in the field of modern pottery-making, basketry, weaving, spinning, mat-making, etc., are of great merit, and have incidentally contributed greatly to our understanding of these crafts in ancient times.

While the British school has lost heavily by the resignation of Mr. Crowfoot, it is very fortunate in having been under his direction for so long. The new Director, Mr. Guy, is a worthy successor of Garstang and Crowfoot. May the school flourish exceedingly under his guidance.

The Church of the Holy Sepulchre

By J. W. Crowfoot

The dome over the Katholikon in the church of the Holy Sepulchre was so badly damaged in the earthquake in 1927 that it had to be taken down. The reconstruction was entrusted to the Public Works Department, and it was only about half finished when it became evident that it would be dangerous to proceed further. Work on the dome was suspended, and it was decided to seek the advice of some recognised expert on the conservation of ancient buildings as to what should be done next. As expert the Palestine Government had the good fortune to secure the services of Mr. William Harvey, an architect who has had exceptional experience in this highly specialised branch of work. The two books before us, which have been admirably produced by Mr. Humphrey Milford of the Oxford University Press, are the first fruits of Mr. Harvey's appointment. One contains a structural survey of the church of the Holy Sepulchre, the other of the church of the Nativity at Bethlehem, for the Government very wisely seized the opportunity of getting Mr. Harvey's advice on this building also, a step which was the more appropriate because Mr. Harvey was one of the contributors to the volume on this church issued many years ago by the Byzantine Research Fund.

Both books are arranged in the same way. Each begins with an introductory chapter by Mr. Richmond: these chapters are very short, just over ten pages each, but they tell the general reader all that is most relevant in the architectural history of the respective buildings: in spirit and in matter they are models of what an introduction should be. Mr. Harvey's structural survey and recommendations follow: they too are very brief, the

1. Church of the Holy Sepulchre, Jerusalem. Structural survey, Final report by William Harvey.

2. Structural survey of the church of the Nativity at Bethlehem by William Harvey.

Both volumes published by the Oxford University Press, London: *Humphrey Milford,* Price 36*s.* net each.

greater part of each volume being filled with photographs, plans and drawings—in the volume on the Holy Sepulchre, for example, the report takes up 29 pages, and there are more than 120 full-page illustrations besides five plans on folders. The subject is highly technical and a wealth of illustration is needed to bring home to the lay mind the meaning of the stresses and pressures, the tensions and torsions, which are mentioned in the text.

According to Mr. Harvey the decay found in the structure of the church of the Holy Sepulchre "is in the main due to the thrusts from the dome of the Katholikon, and also to a lesser extent from the old roof of the Rotunda.....Owing to the nature of the fabric, which is mainly of Crusader period, *c.* 1140-80, these thrusts have been able to force outward all the exterior walls of the building, and in many cases the walls of subsidiary surrounding structures. Apart from the absence of buttresses, special features which have rendered the decay easier are the poor mortar used, the comparative thinness of the main walls, and the small area of the building in proportion to its height. Earthquakes, which occur frequently, and of which there is a severe shock at least every century, and the disastrous fire of 1808 have also played a prominent part in accelerating the rate of decay, though the unbalanced thrusts of the building would in the end cause its downfall, even under more fortunate circumstances."

The numerous tell-tales which were put up while the survey was proceeding showed that movement was still occurring at a rapid rate in many parts of the building, and a mass of struts and girders and ties have been erected to prevent any disaster from happening before the permanent works of conservation can be started. These latter works fall into various groups. In the first place there are the works of internal consolidation and reinforcement which are necessary to save the building as it is: in the second place there are a number of changes and modifications, varying from minor improvements such as the re-setting of paving stones to the rebuilding of the upper parts of the

tower, which the works in the first category will render possible. Among the recommendations of Mr. Harvey which will appeal to everyone are such changes as the opening of the many blocked doors and windows and the removal of the modern masonry which was introduced after the fire in the last century and which will serve no function when the old walls have been consolidated on modern lines. The works that are proposed are similar in character to a great many works which have been carried out recently in Italy and Greece where recent accretions have been cut away with the happiest results. In Jerusalem it is fortunate, perhaps, that the nineteenth century works in question are so recent and so incongruous that no one will lament their disappearance.

The Crusader portions of the building are those which will be most immediately affected by the works in the centre of the church, but it is equally desirable that the splendid Byzantine fragments on the north side, in the south east, and in the Rotunda should also be disengaged, and the Rotunda itself reconstructed if, as seems probable, large portions of the original work of Constantine Monomachus are still in existence. Mr. Harvey has sketched a magnificent programme, but we cannot help thinking that when the work has been seriously taken in hand more details of interest will be discovered, and the final programme may be even longer. As it is, however, to those who know the present church, dark, dirty and dilapidated, the picture of the church as it is soon to become will seem almost unimaginably glorious, in particular the view of the parvise with the Byzantine colonnade at the south end, both the doors into the south transept open and the old way to Calvary through the chapel of the Franks.

The church of the Nativity at Bethlehem was built on a smaller scale than the church of the Holy Sepulchre, and it has had a very different history. Much is still obscure but Mr. Richmond's introduction contains three or four references which are of special interest to English readers. When the church was restored in the twelfth century, one of the three moving

spirits was the Latin bishop Raoul, a man of Anglo-Norman origin, and it was doubtless owing to his influence that *Saint* Canute, King of the Danes, and Saint Olave of Norway were painted among the saints upon the columns. Again in the fifteenth century when the roof was repaired, it was Edward IV. who made himself responsible for providing the lead, and on two earlier occasions Englishmen, Hubert Walter, Bishop of Salisbury, and Richard, Duke of Cornwall, intervened successfully with different Muslim rulers on behalf of the rights of the western communities. It is very fitting, therefore, that Englishmen should have another chance of helping to conserve the church.

The dangers to the fabric which Mr. Harvey describes are like those which have threatened so many old churches at home. Woodworm and dry-rot have played havoc with the roof, much of the upper masonry has perished, and the foundations have been seriously weakened by the extensive vaults and grottoes which underlie the building. It was while examining the foundations that Mr. Harvey made the startling historical discoveries which he described in the last number of this journal.

The discovery of the early mosaic floors raises the problem of their further conservation which is discussed in the volume before us. Three alternative plans are put forward : (1) the floor might be relaid just below its present level and movable sections left in it for the inspection of selected portions of the mosaics, the other mosaics being buried ; (2) the mosaics might be taken up and relaid on the higher floor level ; (3) the floor of the nave might be lowered to the level of the mosaics and solid steps down to it built on all sides. The third of these alternatives has been adopted in somewhat similar circumstances at Aquileia, but the writer personally hopes that this alternative will not be chosen at Bethlehem : it would change the proportions of the building and it would interfere considerably with some of the religious services. A combination of the two first alternatives might be the most satisfactory solution, fragments like the IXΘYΣ panel and the better pieces in the crossing being raised and relaid, and the remainder being left where they are but made available for inspection in the manner indicated.

We read on a slip which is inserted in each of these volumes that the recommendations in the Report will be considered by the Government of Palestine in consultation with the representatives of the religious bodies concerned, which is, of course, the correct procedure. And in spite of what is often said we do not anticipate that any unreasonable difficulties will be made by the religious authorities ; on the contrary the local ecclesiastics, and in particular the Greeks, who are perhaps those with the largest claims, have, we believe, shown the friendliest interest in Mr. Harvey's work, especially at Bethlehem. They have, of course, to their charge many sins both of omission and commission in the past like other ecclesiastical authorities in every country in the world, but everywhere there has been a change of heart in these matters, and now that Government has shown its concern and, by these publications, made us all, as it were, accessory to the facts, we shall be surprised if the recommendations are not universally welcomed.

These volumes reflect the highest credit on all concerned, on the Government which commissioned them, on the contributors Mr. Richmond, Mr. William Harvey, and Mr. John Harvey (whose signature appears on most of the plans), and on the Press which has issued them.

Précis d'Archéologie Biblique. Par A. G. Barrois, O.P. Published by Bloud & Gay, 3 rue Garancière, Paris. 1935. 208 pp. 12 francs.

Père Barrois, the author of this little book, has been for many years a member of the French Archæological School in Jerusalem, both as student and lecturer. He knows Palestine and Syria almost from end to end, and has taken an active part in several excavations, he was actually the member in charge of the Thureau-Dangin expedition to Arslan-tash when the famous ivories were found there. He is, therefore, exceptionally well qualified to write a handbook on Biblical Archæology, and he has accomplished this task very well within the limits which he has imposed upon himself. Père Barrois has apparently tried to

include in this small compass something about everything connected with Biblical Archæology with the result that he has not had room to write much about anyhting. The book contains chapters, for example, on ' La Société,' ' Les religions de Canaan,' and ' La religion d'Israel,' but pottery, metal-working and textiles, are all treated in a single chapter entitled ' Les métiers ' and ' L'écriture,' ' Glyptique et Sculpture ' form two out of five sections in another chapter devoted to ' Les arts libéraux.' So far as it goes, however, the matter is good, well selected and up to date ; illustrations have been reduced to a minimum—11 small text figures. J. W. C.

The Samaritan Passover

By J. N. Schofield

LARGE numbers of people have visited Mount Gerizim and watched the sacrifice of the Samaritan Passover since Heinrich Petermann in 1853 (*Reisen im Orient*, vol. i., 1860), but there is seldom agreement, even between these eye-witnesses, as to the details of the ceremony. Discrepancies exist partly because of the difficulty of getting near enough to the trench where the slaughter takes place or to the pit in which the carcases are roasted, and partly because the Samaritans themselves do not give consistent accounts of the sacrifice even though one is able to converse with them in the Arabic which they habitually use.

This year a winding motor road had been constructed from Nablus right up to the place where the Samaritans were encamped, and, relieved of the strenuous climb, more people than usual were able to see the sacrifice on Wednesday, April 17th, the date on which fourteenth Nisan fell this year. The site of the camp is a relatively level piece of ground about ten minutes walk from the summit of the Mount. Here the whole community of about 190 people had already been encamped for four days, and would remain for a total period of about ten days. The car park and the electricity which lighted the tents and wooden huts in which they lived, added a modern touch to the scene we were to witness.

Above the camp were two plots of ground enclosed separately by low rough stone walls. The larger, about 30 yards square, had in it the High Priest's stone on which he stood to lead the prayers, a pole with a powerful electric light attached, and a trench about 3 feet wide and 9 feet long lined with rough unhewn stones. The Samaritans call this trench the "Altar" (Ya'aqor Ben Uzzi Ha-Cohen, *The Celebration of Passover by the Samaritans*, 1931). A fire was burning in the trench, and on wooden poles across the top stood a cauldron of water. Around the inside of the boundary wall were rows of forms and chairs

for the more distinguished visitors, and near them seven lambs were grazing contentedly. In the smaller plot was a circular pit about 6 feet in diameter and 12 feet deep, also lined with stones, with a fierce wood fire burning in it. The jostling of people round its edge made it difficult and dangerous to get close, and one understood Dean Stanley's remark that he was not able to get very near ! (*Jewish Church*, vol. i, Appendix 3).

When we arrived at the place of sacrifice the High Priest was still conducting the Service, which, I believe, consisted of reciting the Exodus story of the Passover, and following it by antiphonal liturgical singing. Just before sunset, at about 6.25 p.m., all the people moved across to the trench, making an oval shaped ring round it. The lambs were caught by white-robed youths, brought into the ring, and held by them at equal distances apart around the trench—three lambs on each side and one at the far end. The antiphonal singing continued during this time led by choir boys, also robed in white, who formed the inner side of the ring. The High Priest then came into the circle and in a rapid cursory way inspected each lamb. Then at a given word all the lambs were gently thrown to the ground, each held by three youths ; one held the lamb down, another held its legs and the third pressed back the head to leave the throat bare. The lambs were so arranged that no lamb could see any other lamb. A priest then stepped out into the ring holding a knife. I had wormed my way nearly to the inside of the ring and watched him go round from one lamb to another and cut its throat, practically severing the head from the body with one rapid backward and forward stroke of the knife. Immediately the youth holding the animal's head turned the head over so that the wound was on the ground, the blood drained straight into the ground and one hardly saw either blood or wound. The singing grew in intensity while the slaughter was taking place, but there was no struggle nor sound from the victims.

From where I stood I had an uninterrupted view of four of the lambs ; these four at least were killed by the same man. Other spectators have spoken of the head of each family killing

his own lamb and of the youths brandishing long knives and drawing them across the lambs' throats. The actual ceremony this year was far less dramatic but much more dignified and humane. Further, so far as those four lambs were concerned, no use whatever was made of the blood, neither dipping of hands in it nor besmearing of anyone with it. This agrees with Moulton's account (*J.B.L.* xxii., 1903, p. 187), but is contrary to the observations of most writers (*cf.* Stanley and Petermann, and Rev. G. H. Heaslett in *Royal Army Chaplains' Journal*, July, 1932).

The animals were held firmly thus for 10 to 15 minutes while the blood and the life drained out, and the water was brought to the boil. The water was then ladled out and poured over the carcases from which the wool was plucked without any apparent difficulty and burnt on the fire. While this was happening, white-robed servers brought round pieces of unleavened bread, rolled round bits of a green herb whose leaves were about the size and colour of watercress leaves. I had met some of the fine well-built Samaritan folk a few weeks before, when I called on the High Priest and was shown their treasures, so I was offered some of the food and ate it. I had never tasted the herb before and though bitter it was not distasteful.

As each lamb was plucked it was fastened to a short pole and carried on the shoulders of two men to the electric light. There three men—excellent butchers—cut off the right fore-leg of each lamb, took out the sinew of the back legs and proceeded to disembowel it. Great care was taken that no smallest part was allowed to fall on the ground. Once when a very small fragment of a sinew fell into the grass, the butcher stopped work while search was made and it was found. The white-robed choir boys gathered round, zealously carrying the refuse to the fire and laying it on the wooden poles, on which the cauldron had stood, to burn. The right fore-legs and all the edible offal were put into a large cauldron of cold water. It was the priests' portion. Stanley says it was all, except the liver, thrown aside and burnt, but probably he found it as difficult to get near the trench as it was dangerous to approach the pit. When I was making my

way near to the trench one of the youths turned on me and in Arabic in an aggressive manner asked whether I was a Jew. I replied that I was not, and he became friendly making way for me to see exactly what was happening.

When the butchers had finished their task a pole, about 14 feet long, was pushed through each lamb lengthways, the skin was slit in a number of places and salt was rubbed well into each carcase. The priests' portions, which had been washed clean of any blood, were fetched from the cauldron and spitted on an eighth pole and also well salted. All eight poles were then carried into the other field to the pit or oven in which the fire had been allowed to die down. Eight men, with a pole each, lined up round the edge of the pit, and at a word of command simultaneously thrust the poles down into the centre of the pit, not allowing them to touch each other nor the hot stones lining the pit. A large round piece of wood had been fixed to each pole about 2 feet from the bottom to prevent the carcase touching the ashes, a kind of wooden grid was put on the top of the pit and the top ends of the poles were held in position by it. Grass was heaped on top of this grid and mud thrown on to the grass until the pit was sealed up and rendered airtight.

The lambs had taken about three hours to prepare and were to remain in the pit for about three hours more. The crowd began to melt away, a few of the older men among the Samaritans gathered round the trench and sat down to watch the refuse burning and to keep the fire alight ; others entertained us to coffee in a big reception tent, while others went back to the tents where the women had remained with the smaller children.

We did not stay to watch the lambs lifted up from the pit, carried to the trench, and there hastily devoured by the whole community with loins girt, feet shod, and staff in hand. We made our way down the new motor road, which led by the entrance to the hovels which constitute the Samaritan quarter of Nablus, and got our bus back to Jerusalem, wondering as we went how much this ancient sacrifice had altered in, perhaps, the last 3,200 years and how long that little Samaritan community would survive to continue it.

The Inscriptions on the Tell Duweir Bowl and Ewer

By F. Melian Stawell

The brief inscription on the outside of the Tell Duweir bowl is written on a curve slanting from the rim to a point about half-way towards the centre. Now most scholars who have proposed renderings begin at this latter point, reading outwards to the rim. But I submit that there are two objections against this. (1) It means that the writer (who had ample space at his command) chose a line that did not allow him a free run for the end of his inscription. (2) It does not explain the curved stroke along the characters near the rim. (See Pl. II.)

But if we begin at the rim and read from *l.* to *r.*, the direction of the writing on the Tell Duweir ewer, we get the free run required, and can also explain the curved stroke as indicating the sweep that the writing is to follow. Further, we can offer what I cannot help thinking a simpler and more plausible rendering than any I have yet seen. I take the first signs on the left to be Zain-Waw, Kaph-Pe-Kaph, followed by an upright as word-divider, and then by Taw-Shin-Lamed-Shin-Daleth. The whole can readily be vocalised to the following effect :[1]

"Zow kaphka. Tashaloshad" = "This (is) thy bowl. For a threefold (libation)."

I must, of course, give reasons for the sign-values I suggest, several of which have been or may be questioned.

(1) Zain.—As the traces appear at present on the bowl, the sign has two uprights, one cross-bar and a dot above the bar. I understand that Mr. Starkey thinks the dot is only the remains of another bar, but this can hardly be certain. In any case and in the general doubt about the sign, I would urge that the clue should be sought in the close affinities between it and common linear forms of the Minoan double-axe, a sign suggested by Sir Arthur Evans as the prototype of Zain, a prototype which certainly explains all the varied Semitic forms of Z and all the classical too. Our character fits well into the series and the affinities would only be the more significant if the dot should

[1] I do not profess to be sure of the precise vowels.

turn out to be all that was intended by the writer, for a Cretan linearisation with dot and bar seems nearly as common as the linearisation with two bars or two diagonals. (See e.g., *The Palace of Minos*, vol. iv. part 2, fig. 666A. Cp. also my own book, *A Clue to the Cretan Scripts*, fig. 1, etc., for this and all the other signs.)

(2) WAW.—This would be the ordinary Waw, only reversed, And we find a reversed Waw in old Hebrew.

(3) KAPH.—A similar form of Kaph with only two curves to the left, representing, presumably, thumb and index finger, recurs in Phœnician and Samaritan, not to speak of Sq. Heb. I argue the more for Kaph, not Yod, because in early Semitic the typical Yod exhibits another stroke on the other side at the base of the shaft, indicating, no doubt, the turn of the arm. The typical Kaph has nothing like this, because Kaph concentrates, as the name suggests, on the *palm* of the hand. For similar reasons I would suggest "CaLeB" on the Gezer jar-handle. (*Quarterly Statement*, July, 1935, p. 133.)

(4) PE.—This can easily be understood if we remember that the word "Peh" can mean "the edge of a blade," and accept the proposal that both letter-name and letter-form were suggested by the Cretan single-axe sign, "Pelekys," a theory which also explains all the diverse forms of P, alike in Semitic, Greek and Latin. Here, e.g., the round "Syrian" axe is in the writer's mind.

The theory Pe-Pelekys (value P), also enables us to read more than one appropriate word in the Cretan scripts. Among these I should now include the word "Pōloi," indicated, though banteringly, by Sir Arthur as a possible reading for two signs written twice on a clay tablet alongside the heads of foals. (*P. of M.*, vol. iv. part 2, fig. 773.) The first sign in each case is obviously the outline of a simple rectangular axe, the second I had already identified, provisionally, on other evidence as L from Lotus, and both signs show marked affinities with the Cyprian syllabary. Not that I think the main Minoan system itself should be taken as syllabic, acrophonic rather, only imperfect, the vowels being omitted in the body of the word

unless particular emphasis were required. This omission, indeed, was a prime defect, and though followed in Phœnician, attempts such as the Cyprian were, I believe, made elsewhere to meet it, until the simple plan of writing the vowels throughout was adopted by the classical Greeks.

(5) KAPH.—As above (3).

(6) Short upright as word-divider. This also occurs in Cretan. On my rendering, I admit, two words have already preceded without any divider. But this is quite natural, because these two go closely together, and in early scripts punctuation is only usual where a marked distinction is needed.

(7, 8, 9, 10) TAW-SHIN-LAMED-SHIN.—Generally accepted.

(11) DALETH.—Beth, proposed by distinguished scholars, is perfectly possible. And the meaning could be the same. But the triangle in the sign does seem to me too large, and not quite in the position for a typical Beth, and therefore I put in a plea for Daleth. A big triangle is eminently characteristic of early Daleths and the whole arrangement of the lines corresponds closely with the Minoan house-sign (entrance view), itself suggested by the Egyptian palace-sign and where the value of D from Domos (giving good sense) may in its turn have suggested the letter-name Daleth. In our present sign, as I take it, the only lines omitted from the typical Minoan are the spikes at the top and the bar at the bottom. (Sometimes the Minoan, like the Egyptian, has two smaller diagonals crossing each other, a form which explains some queer shapes in S. Semitic.)

I would like to add a few words on the possible connection between the bowl and the ewer. (See Pl. 1.)

Since the word-divider on the bowl is simply a short upright, the presumption follows, as Mr. Starkey has pointed out, that the three dots set one above the other on the ewer do not stand for a divider but for the number three. And since they follow the signs generally accepted as M-T-N = "offering," we may further presume that the offering was in some sense triple. This certainly reinforces the reading "shalosh" on the bowl and might also reinforce Father Burrows' suggestion that the offering is made to three divinities. But Father Burrows,

suggestion, however attractive, involves taking the signs Eisler takes for Gimels—fifth and seventh from the left—as tailed Waws reversed. And I cannot feel we have evidence for this. Indeed, if the reading Waw on the bowl is right, the evidence here would cut against it, since this Waw has no tail to the shaft. Further, where the Waws we know do have a tail, it seems most naturally accounted for by the sweep of pen or tool when making the downstroke. But that could not occur on the ewer where, *ex hypothesi*, the Waw is reversed.

And in favour of Gimel we must not forget that, after all, we have got to explain why later forms, Palmyrene, Sq. Heb., Raschi, exhibit a similar side-stroke, though only on the same side as the bar above. The forms *are* late, but the stroke must have come from somewhere. Now both these and the forms on the ewer can all be explained on the theory of a Minoan prototype, Gimel being suggested by the Cretan sign of a leg bent at the knee. Experiment with an actual leg and comparison with relevant Cretan signs and drawings will show that when the foot is a-tiptoe—and this is the more usual posture with the knee bent—then the line of the heel makes a slanting stroke at the base of the leg on the same side as the bar of the thigh, while, if the heel is kept down, the stroke is on the other side. Frequently, of course, the foot would not be indicated at all, but, where it was indicated, one of these strokes would appear and might well persist in certain alphabets. Owing to the scantiness of all our records, forms typologically earlier, it must be remembered, may appear as chronologically late. It may be worth noticing that an early Greek Gamma, on a bronze plate found at Olympia, shows a similar side-stroke, while the bar at the top is omitted. (Roberts : *Introd. to Greek Epig*, I. No, 294.) This form reversed may have led to the minuscule, γ.

In conclusion I would venture, perhaps too daringly, to suggest three fresh readings as possible on the ewer. To the right of the last distinct sign, generally accepted as Taw, there is a shaft with a big curve at the top and below this traces of a returning angle. The breakage interferes sorely with any hypothesis, but I cannot help thinking that what is left strongly

THE TELL DUWEIR EWER.

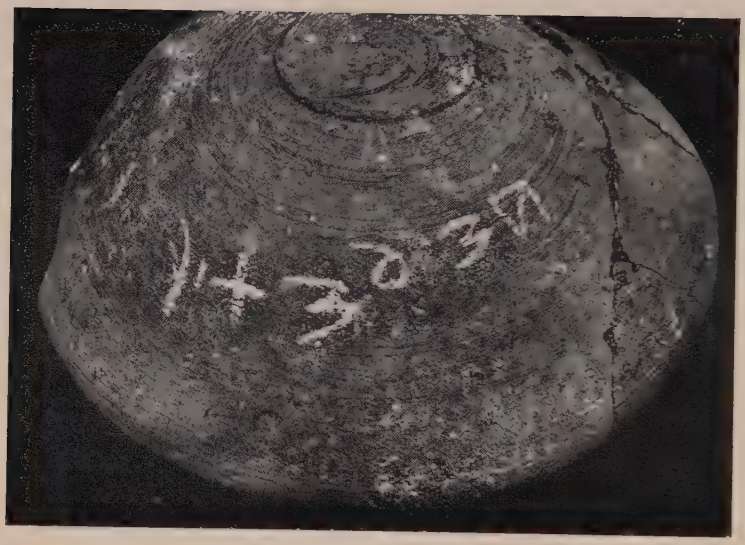


Fig 1. The Tell Duweir Bowl.

suggests a Resh, and I am the more emboldened because Mr. Starkey told me he thought the lines did form part of the inscription. There is room in the gap on the right for another letter, and, if we dared supply Pe, we might read "El-teraph" for the concluding name. And the name of some divinity does seem required.[1] This, of course, is only a guess and to fill the other gap on the left we have to guess again, But we can do little else at present, and I make bold to suggest Aleph with Eisler and Mem on my own account, so as to read after the triple dots "S-G(A, M)-T-G," giving the general sense, 'Be exalted, have dominion, O God, Preserver!"

My hope is that Mr. Starkey will find more fragments and settle such points. If it should turn out that the ewer really was offered to one divinity, it would, I think, do something to confirm my reading on the bowl.

[1] "El-teraph" also suggests "El" on the Ain-Shemesh ostracon. (*Quarterly Statement, op. cit.*)

Correspondence

Dear Sir,—In regard to the outstanding discovery of the 1934-1935 work at Tell Duweir by J. L. Starkey, namely, "The Lachish Letters," I would like to draw attention to what appears to be a mistaken dating of these. Mr. Starkey's date of 597 B.C., the last year of Jehoiakim's reign, is earlier than the combined evidence of the Book of Jeremiah and of the letters themselves, on two considerations. These are (1) the time of the fall and destruction of Lachish, and (2) the reference to Nedebiah, grandson of the King.

From the letters themselves, and the fact of potsherds being used for writing material, as well as the finding of the letters in the ashes of the destroyed city, the conclusion has been that they were written just before the city fell, while the land was being overrun by the invaders. But when did Lachish fall? Jeremiah xxxiv. 6-7 definitely places the fall and destruction of Azekah and Lachish in Zedekiah's reign, so that the date would be about 586 B.C., when Nebuchadnezzar took Jerusalem the last time. This is eleven years later than Mr. Starkey's date.

Nedebiah, grandson of the King, is referred to in Letter III. as bringing a letter from a certain prophet to a man named Shallum, son of Yadua, and this Nedebiah is identified with the prince of that name in 1 Chronicles iii. 18, son of Jeconiah (Jehoiachin), and grandson of Jehoiakim. This identification leaves no question but that the letter was written later than 597 B.C., for at that time Nedebiah's father Jehoiachin was but eighteen years of age (2 Kings xxiv. 8), so that Nedebiah at best was little more than an infant, certainly too young to be entrusted with the prophet's letter. At the close of Zedekiah's reign Nedebiah, though still quite young, would be old enough to carry a letter.

These two considerations certainly strongly support a later date than the one given by Mr. Starkey.

The later date of 586 B.C. for the Lachish Letters removes the necessity for supposing a transposition of names in Jeremiah

xxvi. 22, indeed the reading there of "Elnathan the son of Achbor" is rather supported than otherwise. The 26th chapter of Jeremiah is dated as "In the beginning of the reign of Jehoiakim," and the journey of Elnathan to Egypt in search of Urijah had already occurred in the same reign, hence must be dated as about 608 B.C. This is more than twenty years before the Lachish Letters were written. This Elnathan would hardly escape deportation with Jehoiachin in 597 B.C., when the King, "his servants, and his princes, *and his officers*" were carried to Babylon (2 Kings xxiv. 12). The Lachish Letters inform us that Elnathan's son, Akhbor, had taken his father's place after the deportation. In this way the Achbor of Jeremiah xxvi. 22 is the grandfather of the Akhbor of the Lachish Letter III., with no contradiction between the Book of Jeremiah and the Lachish Letters.—Yours sincerely, DAVID J. GIBSON.

The Level and Cartography of The Dead Sea

Reports by T. J. Salmon and G. T. McCaw, C.M.G.

INTRODUCTION

IN the QUARTERLY STATEMENT for October, 1913, Dr. Masterman published a very interesting paper entitled 'Summary of Observations on the Rise and Fall of the Level of the Dead Sea,' 1900-1913. The results of these observations was to show that the varying level was largely influenced by the amount of rainfall.

Interest in this subject has been newly aroused by Mr. J. B. Harriman, an American correspondent who travelled the Negeb and southern region of the Dead Sea in 1908, and who has recently undertaken, for an American society, the compilation of a map of greater Palestine and parts of Syria. Mr. Harriman inevitably finds some difficulty in deciding the coast lines of the Dead Sea in relation to its level, particularly with regard to the shallow southern end where a rise of a few feet can submerge a considerable area.

All maps published prior to the war, and some others since, give the Conder-Kitchener Survey (1871-77) level of -1292 feet below the Mediterranean, while the survey of 1914 under Capt. Newcombe, which included the southern shore of the Dead Sea, gave a level of -1270 feet, and definitely changed the form of the coast-line. This change of shape has been reproduced on all recent maps, but cartographers have sometimes incorporated the old figure -1292 feet, thus adding to Mr. Harriman's difficulties.

The P.E.F. accordingly invited Mr. T. J. Salmon, Commissioner for Lands and Surveys, Palestine, to furnish any recent information available on the subject, and he has very kindly responded with a report accompanied with a chart of levels for the years 1927-1935 (Pl. III), and a photograph, taken recently, of the P.E.F. observation rock which we publish with one which was taken twenty-three years ago when Dr. Masterman concluded his observations (Pl. IV). From a comparison of these photographs, it would appear that the level has fallen considerably in those twenty-three years, a fall which is indicated also by Mr. Salmon's reference to the small island Rijm el Bahr which appeared off the N.W. shore on the old P.E.F. Survey map as being 12 feet above the water. This island disappeared about 1892, and must have been submerged to the extent of some 10 feet when the Survey under Colonel Newcombe was made at the southern end of the sea in 1914. The indications of Mr. Salmon's report are that this, the only island of the Dead Sea, may yet reappear again after forty-four years or more.

The notes submitted by Mr. G. T. McCaw of G.S.G.S., War Office give an interesting chronology of the cartography of the Dead Sea.

SURVEY OF PALESTINE,
P.O.B. 676,
JAFFA.
27th November, 1935.

DEAR SIR,

In answer to your inquiries about the level of the Dead Sea, I forward the following notes which I hope will be of interest.

I have just returned from a trip down the Dead Sea, where I got some useful information from Colonel Tulloch of the Palestine Potash Co.

A recent sounding at the site of the Rijm el Bahr gave the depth of water between ½ and 1 metre.

I enclose a copy of a chart that this Department publishes with its Annual Report showing the variation in level, from which you will see that it has gone down a metre in the last few years. If we get as good rains this year as last (and the season has started well) it would seem likely that the level will rise, but one cannot be sure as the Dead Sea does not always do what one would expect.

The hammer-headed promontory at the South end of El Lissan shown on the War Office maps has of course disappeared many years ago. This is the only part of El Lissan where the coast is low and shelving ; no doubt the feature is not far below the surface. There is a small spit of land near the South end of Jebel Usdum where the Potash Co. have put a short pier and Colonel Tulloch tells me that there has been some curious silting up there recently ; not with the sandy mud of which the beach is formed but with a shaley gravel.

There is a southward drift of the gravel which must be due to wave action only, as there is no current. A curious point about the beach of the Dead Sea, at any rate opposite Jebel Usdum, is that the sand has no trace of salt in it. Considering that this narrow strip of land lies between the very salt sea and a mountain largely composed of rock salt, the fact that the beach sand has no salt in it is very curious. It is probably due to fresh desert sand being carried there by the wind and also possibly to the washing effect of the small quantity of rain which falls in that area.

The conformation of the South coast of the Dead Sea is being altered by the dams and extensive evaporation basins which are being put in by the Potash Co. The Company's camp is near Jebel Usdum below the main deposits of driftwood which are near the base of the cliff. That the Ghor at the South end of the sea is as flat as it appears has been illustrated quite recently by the

fact that a wadi coming down in flood from the Beersheba hills shot right across the shallow stream beds and entered the sea over towards the Trans-Jordan side ; an occurrence which upset my plans for tracing out a Thalweg, which could form the Trans-Jordan boundary.

Many observers have noticed curious long lines of foam floating about on the Dead Sea. They are similar in their occurrence to the long strips of sea-weed seen in the Red Sea. I recently flew over the Dead Sea and from the air these foam strips are very remarkable, showing up quite white against the very dark background, like the tracks of so many speed boats.

Before long the entire Palestine coast of the Dead Sea will be accurately surveyed on the 1/100,000 scale, mostly from air photos, and any changes in future can be easily detected by re-photographing.

I think there can be little doubt that Mr. Harriman went over, in his boat, what was recently (until the Potash salt pans were started) dry land and that the War Office had used an up to date sea level but had no information from which to alter the shape of the coast.

This Department has so far accepted old records and as I have no account of the methods or closures of the old levelling, I cannot say what order or error can be expected in it. All I can say is that, considering the great differences in height of the line of levels, the sources of error which were not known sixty years ago, the old pattern of instruments used and the fact that wooden staves were employed instead of Invar, Capt. Conder's estimate of accuracy is optimistic.

It is high time that reliable geodetic levels were available in Palestine and we have begun the survey of a net referred to the mean sea level of Haifa. The first circuit, 170 Kms.—Haifa-Jenin-Tul Karm-Haifa—closes to 27 mms. Tul Karm is connected to Jaffa and the latter is being connected to Jerusalem, Jericho and the Dead Sea. By next hot weather I hope to have a fairly reliable datum at the Dead Sea connected to mean sea level, but of course final results cannot be published until the whole of the Palestine level net is completed and adjusted.

We are experiencing difficulty in finding something solid on which to put a Fundamental Bench Mark near the Dead Sea, and it is likely that we shall have to go so far as the P.E.F. rock at Ein Feshka, which Mr. Mankin of this Department found the other day.

I enclose a photograph of this rock taken by Mr. Mankin, which is interesting to compare with that shown in the P.E.F. QUARTERLY of October, 1913 and taken in 1911. It is now 62 ft. away from the edge of the sea (Pl. IV). Fundamental Bench Marks are being left at important points and there is one in the Garden of Gethsemane so that it will be possible to measure any changes of level between the Judean Hills and the Ghor in years to come.

Our trigonometrical heights, which are of course only approximate, agree with the old levels to 1 metre at the Dead Sea, but there is a much bigger discrepancy in the North in the neighbourhood of Huleh. It will probably take two or three years to complete our geodetic levels, but accurate heights will ultimately be available all down the coastal plain, along the hills from Beersheba to Safad, and through the whole length of the Jordan Valley. Another investigation which should give interesting results in the Ghor, is a magnetic survey of Palestine which we are starting shortly. Unfortunately, we have not the instruments nor the staff to measure anything but variation, and observations for " dip " and " force " will have to wait for the present. Observations will be made, in the course of our journeys, by Inspecting Officers and myself, with the Connolly compass.

We hope to make an interesting addition to the cartography of Palestine next year. The survey of the Old City of Jerusalem was made in 1865. It only showed the more important buildings and an outline of the streets and it has never been properly revised. Revision of this excellent piece of work is now taking place and I expect to publish a special map on the scale of 1/2500 showing, in detail, the area within the walls.

Owing to the activities of Government Departments and such bodies as the Palestine Potash Co., the Palestine Electric

Corporation and the Huleh Concessionaires, to say nothing of the staff of such Institutions as the Hebrew University—much is being added to our knowledge of the interesting country from Hermon to the Jebel Usdum—and the Survey Department, which already has a very heavy land programme before it, will do its best to furnish the necessary geographical data and the maps on which to record and illustrate results.

I am, Dear Sir,

Yours faithfully,

(Signed) T. J. SALMON,
Commissioner for Lands and Surveys.

NOTES BY T. G. McCAW, C.M.G.

1846.—The first effort at proper mapping of the Dead Sea was completed in this year. The map was made by Major G. R. Scott from surveys by Lieutenant Symonds, R.E. This map on the scale ¼ inch/1 mile is hachured and no heights are shown; but later work indicates that the planimetry is pretty good. In the Salt Marsh (Es Sebkha—on this map named El Ghor from the general Arab description of the Dead Sea Rift), three streams are shown; but Lieut.-Col. Salmon points out that the drainage here is subject to sudden change, since quite recently a flood from the Beersheba Hills shot across the shallow stream-beds and entered the Lake on the Transjordan side.

An interesting feature is the ford, three miles long, indicated as connecting the Palestine shore near the Wadi Seiyal (? Siyal) with the Transjordan promontory of El Lisan, across which the route passes to *Zoar*[1] on the Wadi now known as el Kerak. The southern end of the Sea is in latitude 31°09′ and is 8 miles south of the parallel of Kerak and 15½ miles north of Tafileh (Tafila) on the route south to Edom. The latest map alters the latitude somewhat and makes the last distance 12 miles, but the straight-line distance from Kerak to Tafila remains approximately unchanged.

1 There are of course other well known suggested identifications of Zoar both at the N. and S. end of the Dead Sea.

1878.—The famous map by C. R. Conder and H.H. Kitchener was prepared from surveys executed in 1872-7. The height is now first given as -1292-1 feet (-394 metres). A spit is shown at the embouchure of the Jordan. The map does not show the foot of the Lake.

1890.—The map by Sir Chas. W. Wilson, K.C.B., F.R.S., and Major C. R. Conder, D.C.L., R.E., is on a scale of $\frac{8}{8}$ inch / 1 mile. It includes the foot of the Lake, shown in latitude 31°05′ ; the Symonds ford has disappeared. The spit where the Jordan disembogues remains, though somewhat reduced in size. The promontory of El Lisan is obviously mapped in more correct detail. The lake level remains unchanged. The rock Rujm el Bahr, at the head of the Lake, is given the height -1,280 feet.

1900.—In this year the Conder-Wilson map was revised. Lake level, measured at a flat south of 'Ain et Tarābe, remains as originally determined, apparently by Wilson in 1864. 'Ain Jidi (Engedi) at whose fountains the palm-trees were " exalted," is prominently marked immediately north of the Wadi el 'Arije ; it is one of the few spots where riparian life was supportable in modern times. No change is shown at the foot of the Lake.

A curious fact is that the rock Rujm el Bahr is still shown, though apparently it disappeared about 1892. Lieut.-Col. Salmon reports that it is now from one-half to one metre under lake level. On the face of things this would appear to be due to a rise of the waters ; but it might equally be due to a further sinkage of the " Vale of Siddim."

1901.—Dr. George Adam Smith prepared the first British bathymetrical map ; presumably the soundings are mainly taken from the report by Lynch to the U.S. Government. The greatest known depth is 1,308 feet, so that the bed of the Lake at this spot is 2,600 feet beneath Mediterranean level. The shallowness of the bed at the southern end is a marked feature.

Adam Smith attached names to the northern and western capes of the promontory of El Lisan (" the Tongue ")—in the main formed of deposits of marl, gypsum and sand conglomerate.

The northern cape is named after Costigan who descended the Jordan from L. Tiberias and died soon after. The western cape was given the name of Lieut. Molyneux, who also succumbed later (1847). These two, followed by Lynch in 1848, apparently all of Irish extraction, were the best known of the modern hydrographers, the last named alone being fully equipped with funds and fully successful.

1915.—The modern map by Lieut.-Col. J. P. S. Greig, R.E., under the direction of Col. S. F. Newcombe, was an extension northwards of the survey of the Sinai Peninsula. Here for the first time south and west of the Lake we have contours fully surveyed on the plane-table ; owing to the method of survey, the levels are not accurate within a few feet, but the outline of the Dead Sea would be accurate to the scale on the field sheets. The reproduction in the Geographical Section of the General Staff was supervised by T. E. Lawrence, who had to combine maps drawn under different conditions of accuracy and so he generalised the eastern (unsurveyed) shores ; in the rush at the beginning of the war the map was drawn rapidly, with the result that even the sea-level contour is followed with difficulty and the reproduction of the field work is not up to standard.

The lake level was accepted at 1,270 feet (387 metres) by Lieut.-Col. Greig, based on a small scale trigonometrical survey from Sinai and Egypt ; this level therefore is no evidence of a rise of lake level at the period of survey. The latitude of the foot of the Lake was again decreased to 31° 01′.

The famous Jebel Usdum (Ridge of Sodom) is now fully mapped, its summit being about 500 feet.

1916.—Somewhat later there appeared a Turkish map, which exhibits an interesting feature : the contours below sea-level are reproduced in blue. This map, on the scale 1/200,000, shows evidence of original survey ; but the cartography is poor and is vastly improved on in the French edition produced in 1919. The height of the Beheiret Lut is not given, but north of the Lake on land near the Jordan mouth a height of 364 metres is shown. Jebel Usdum is well mapped. No spit appears at the mouth of the Jordan.

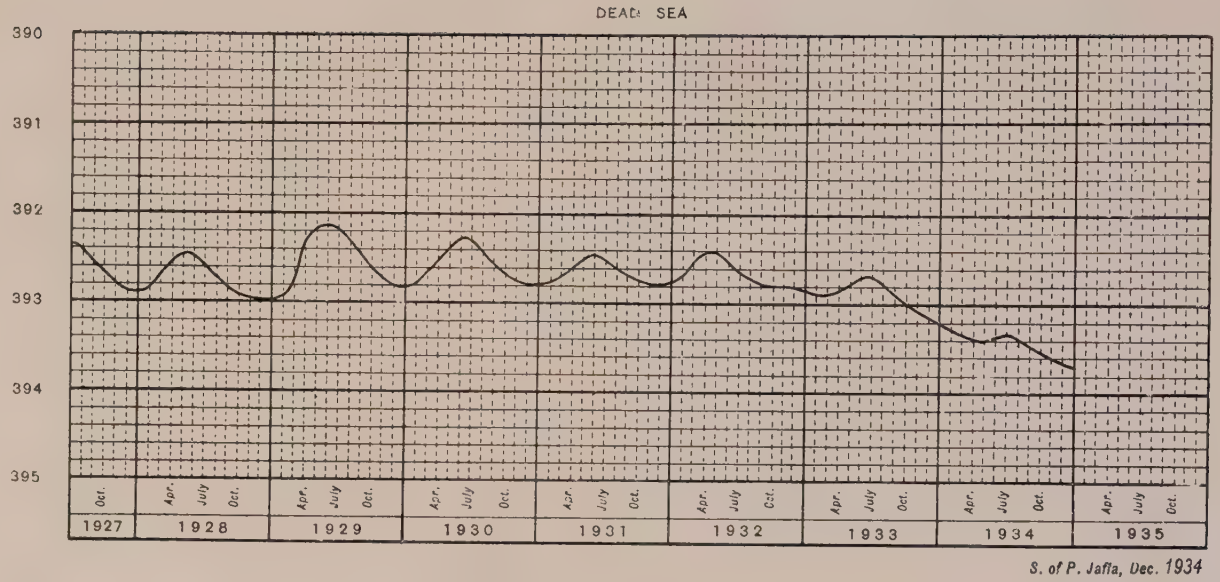
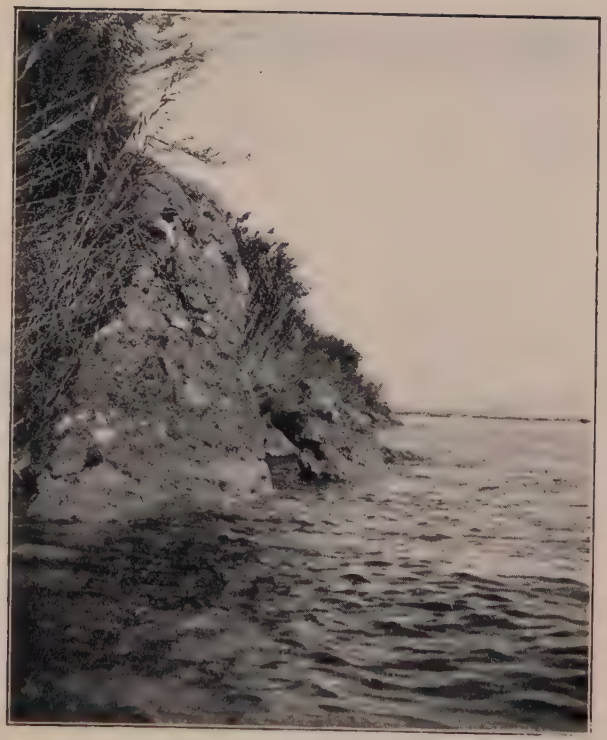


CHART OF LEVELS [in metres] BELOW MEDITERRANEAN.

Observation Rock, 1935. [looking S.W.]



Observation Rock, 1913. [looking N.]

1933-5.—The Transjordan map on the scale of 1/50,000 gives ancient and modern details not found elsewhere. The lake height appears as 393 metres and the height of the landing ground on El Lisan as 320 metres. El Mezre nearby has changed its position from that shown on the early Symonds and subsequent maps. The hammer-headed Cape Molyneux has disappeared.

Lake Levels.—One authority has stated that there are eight gravel terraces on the lake shores, the highest some 40 feet above sea level.

Geodetic levelling is now in progress in Palestine but it will be possibly some few years before it reaches the Lacus Asphalticus. At present the height of the waters, as measured by the survey of Palestine, depends on trigonometrical levelling from the tide gauge at Jaffa. There is good reason for believing that this levelling is exceptionally good for its class. It makes the height of the lake level 392·3 metres ; but since there has been apparently a systematic growth of error amounting to + 1 metre, the true mean lake level on this basis is more likely to be 393·3 metres =1,290 feet. This represents a remarkable accordance with the value found in 1864 by Sir Charles Wilson from spirit levelling, namely, the 1,292 feet previously mentioned.

The lake levels of Tiberias and the Dead Sea are now carefully recorded by the Survey of Palestine and the seasonal curves are plotted annually. Tiberias is at its highest about March or April and its lowest in October or November of a normal year. The flood from Tiberias does not reach the Dead Sea until about six weeks later, being held up by the sinuosities of the Jordan. The seasonal variation in Tiberias is naturally much greater than in the Dead Sea ; in 1929 the range in the former was 3 metres against a normal range of 1½ metres. Though in 1929 the range in the Dead Sea was ⅔ metre, the normal range does not exceed ½ metre. At the end of 1934 the level in both lakes was lower than it had been since 1927—and possibly before that date—being 393·7 metres in the Dead Sea, as against 392·8 at the end of 1929, '30, '31 and '32. This fall cannot be regarded as proof that it is other than an exceptional phenomenon, like the drought of the past two years in England.

The Animals of Palestine. An introduction to the problems of animal ecology and zoogeography. By Prof. F. S. Bodenheimer. 506 pp. 70 plates and 76 text figures. Ludwig Mayer Book Store, Jerusalem. £1 5*s*.

Professor Bodenheimer, a bold and industrious man, has written a book to introduce the reader to the whole fauna of Palestine, which he deals with systematically from the mammals to the protozoa. A slight emphasis is laid upon those creatures which affect man or his crops, so that the book contains relatively full accounts of the locusts, mosquitoes and parasitic worms : also of more general topics such as the sea-fisheries and pests of *Citrus* trees. The author's attention is focussed nearly always upon the living animal and he speaks with special authority on the limits which climate, soil or vegetation impose upon its distribution ; from the information which is given the careful reader may synthesize a picture of the animal community, active at one time of the year, dormant at another, now increasing, and now decreasing.

The introductory chapters of the book discuss the fauna of Palestine in a more general way in relation to geology, the history of zoological exploration and the animals of neighbouring parts of the world. Many parts of the fauna of Palestine have been rather well known for some years and it appears that Professor Bodenheimer has been remarkably successful in collating the information which is available. He has produced a unified account of the whole complex subject.

The book will certainly meet a need with which many travellers in Palestine are familiar. There are nearly seventy plates and a dozen line drawings in each, illustrating animals of all the principal families : they will certainly be valued by the amateur, who needs approximate information about some bird or shell or insect. The text will appeal more to the expert, for it is serious work, containing some rather abstruse ecology and backed by a full collection of references. But in one way or another Professor Bodenheimer's readers will be grateful for the immense labour which he has undertaken. P. A. B.

The Wilderness of Zin. By C. Leonard Woolley and T. E. Lawrence, with a chapter on Greek inscriptions by M. N. Tod and Introduction by Sir Frederic Kenyon. Crown 4to, pp. 161, 40 Plates, 58 Illustrations in text, and 2 Maps and 32 Greek Inscriptions. Jonathan Cape. 18*s*.

This work, now so handsomely produced by Mr. Cape, was originally issued as the *P.E.F. Annual* for 1914–15. The spirited fashion in which the two young authors described their study of the antiquities in the desert country south of Beersheba and Gaza gave unusual distinction to the volume. The brilliance of their subsequent careers has lent it the additional glamour which justifies the reissue of the work in its present attractive form. In fact, however, this remarkable survey may still be judged on its merits to be a highly notable achievement. In the short space of six weeks the two young archæologists disposed of many uncertainties and in particular threw light on the Wanderings of the Israelites. Their work has been the basis of all subsequent investigations in this region, including the unearthing of numerous Byzantine remains. Apart from the book's historical and biblical importance, it is a first-rate descriptive narrative. The authors have somehow accomplished the difficult feat of making a racy story out of their adventures without for a moment losing sight of their strictly scientific aim, or lapsing into generalities when accurately observed and recorded facts were the objective. If archæological *memoirs* generally had a tithe of the literary grace and impress of lively personality that *The Wilderness of Zin* possesses the general public would rapidly become archæologically minded. Sir Frederic Kenyon's *Introduction* succinctly relates the results of investigations made in this southern region of Palestine since 1914.

This book is on sale by the P.E F., 2 Hinde Street, London, W.1.

A FEW PUBLICATIONS
of the
PALESTINE EXPLORATION FUND

Many of the Society's publications are now out of print, but second-hand copies of some are still available, and a full list will be supplied on application to the Secretary.

Books

THE QUARTERLY STATEMENT. A JOURNAL OF RESEARCH AND DISCOVERY. Issued free to Annual Subscribers. The series has been issued without break since 1869, and a few complete sets are available. Prices vary according to condition and binding. Back Numbers of most, except the first ten years may be had. Apply to the Secretary.

EXCAVATIONS AT AIN SHEMS (BETH SHEMESH) during 1911, and INVESTIGATIONS at **RABBATH AMMON AND PETRA.** By DUNCAN MACKENZIE and F. E. NEWTON. P.E.F. ANNUAL Series. Price 21*s.*

EXCAVATIONS AT AIN SHEMS during 1912. By DUNCAN MACKENZIE. P.E.F. ANNUAL Series, No. 2. Price 31*s.* 6*d.*

THE WILDERNESS OF ZIN. Archaeological Report of the Survey of the Negeb and N.E. Sinai, 1914. By C. L. WOOLLEY and T. E. LAWRENCE. P.E.F. ANNUAL Series, No. 3. Price 45*s.* Reduced to 30*s.*

EXCAVATIONS ON THE HILL OF OPHEL, JERUSALEM, 1923-25. By R. A. S. MACALISTER and J. GARROW DUNCAN. P.E.F. ANNUAL Series, No. 4. Price 42*s.*

EXCAVATIONS IN THE TYROPOEON VALLEY, JERUSALEM, 1927 By J. W. CROWFOOT and G. M. FITZGERALD. P.E.F. ANNUAL Series No. 5. Price 42*s.*

EXCAVATIONS IN PALESTINE, 1898-1900 (TELLS ZAKARIYA, SAFI, JUDEIDEH and SANDAHANNAH). By F. J. BLISS and R. A. S. MACALISTER. Price £2 10*s.* 0*d.*

PAINTED TOMBS AT MARISSA (MARÉSHAH). By the Rev. J. P. PETERS, D.D. and Dr. HERMANN THIERSCH. Price £2 2*s.*

THE EXCAVATION OF GEZER, 1902-5 and 1907-9. By Prof. R. A. STEWART MACALISTER, M.A., F.S.A. 3 Vols. with Illustrations. Price £4 4*s.*

GOLGOTHA AND THE HOLY SEPULCHRE. With Plans of Jerusalem and Illustrations. By Major-Gereral Sir CHARLES W. WILSON, K.C.B., K.C.M.G., F.R.S., D.C.L., LL.D. Price 7*s.* 6*d.*

JUDAS MACCABAEUS. By Colonel C. R. CONDER. 5*s.* 8*d.* Subscriber's Price 4*s.* 6*d.*

THE LATIN KINGDOM OF JERUSALEM, A.D. 1099 to 1291. Colonel C. R. CONDER. Price 9*s.* 6*d.*

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

SUMMER CLOSING.—The office and rooms of the Palestine Exploration Fund will be closed from Saturday, 8th August, reopening Tuesday, 8th September.

The Annual General Meeting of the Palestine Exploration Fund was held at 2 Hinde Street on 26th June when the chair was taken by Sir Charles Marston and Professor John Garstang gave a lecture on *Jericho : Further Excavations and Conclusions*. Mr. Colin Baly described briefly the recent discovery of the Papyri found at Auja. A full report of the meeting appears on p. 121.

The Archæological Survey. On p. 123 of this issue will be found a brief outline by Sir Charles Close—given on the occasion of the Annual Meeting—of this joint project of the Palestine Exploration Fund, and the British School of Archæology in Jerusalem.

The Palestine Land Development Company have a project in hand for draining Lake Huleh and the marsh land to the north of it, and the irrigating of this land to bring it under cultivation. The scheme is being worked out by Messrs. Rendel Palmer & Tritton, consulting engineers ; it is thought that work may begin late in 1937. Rock at the mouth of Lake Huleh would be cut away to lower the drainage of the water and perhaps the first mile or two of the River Jordan, below Lake Huleh, would be widened and deepened by rock cutting.

Mr. R. Washbourn and Mr. R. F. Jones visited the Lake

Huleh area from September to December, 1935, and collected many specimens of insects and fish : their report being published in the April number of *Nature*.

We hope in our next issue to have an article by Mr. Washbourn giving his results so far and what remains to be done. That there is considerable study to be made of the flora, fauna and migration of birds is certain : and it must be done during April—August, 1937. It is hoped that the evidence collected will help towards the solution of certain problems connected with the mammalia of the great Rift Depression.

Messrs. Rendel Palmer & Tritton have sent us some interesting photographs taken in the region of their proposed work. We hope to raise some £200 to £300 to pay for the proposed expedition to Lake Huleh before next spring and welcome suggestions from those interested in the subject.

P.E.F. Membership. The Committee desire to draw special attention to the appeal made by Col. Newcombe (p. 124) for wider interest in the objects and activities of the Fund, an appeal which was earnestly endorsed by Sir Charles Marston in his concluding remarks (see p. 139). An increase of membership is a vital necessity and suggestions for achieving that object are invited.

An article by Mr. M. A. Novomeysky, entitled ' The Dead Sea—A Storehouse of Chemicals,' recently appeared in the *Journal of the Institution of Chemical Engineers*. The Institution have kindly given the Fund permission to publish extracts in the Quarterly Statement, and Dr. Masterman has promised to contribute a review of this valuable paper for our October issue.

The Editor regrets that owing to a printer's error a long quotation from Professor Dussaud's comments on the recent excavation of the site of ancient Ai has been made to appear as the expression of the Editor's own views. The quotation

ends three lines from the foot of p. 54, and the Editor's comment follows. The object of the quotation was to point out the danger of too implicit a faith in untested results of excavation, whether for the purpose of attack or defence of an established position. The quotation was also intended to elicit a reply from archæologists qualified to challenge Professor Dussaud's conclusions. Such a reply, by Canon Phythian-Adams, a valued contributor to the *Quarterly Statement*, and one who speaks with the authority of firsthand knowledge, appears in the present issue. The question of Ai is directly related to that of Jericho, and in Professor Garstang's remarks at the recent annual meeting of the Palestine Exploration Fund, published in the present issue, further light is thrown on the problem of the Hebrew conquest of Palestine.

In the *Expository Times* for May, 1936, the Rev. C. Stanley Thorburn gives an account of an interesting experiment which he made at the scene of Joshua's victory in the Valley of Aijalon in the attempt to find a rational explanation of the miracle recorded in Hebrew tradition associated with that event. The experiment was suggested to him by an experience in the Himalayas, where hastening westward down a mountain valley just before sunrise he was able to keep pace with the shadow cast by the rising sun. He carried out the experiment under similar conditions at the actual scene of Joshua's victory, and succeeded in convincing himself that some such experience, interpreted in supernatural terms, underlies the Hebrew narrative.

Sir Leonard Woolley's book on the relation of the discoveries at Ur to the Hebrew traditions concerning Abraham continues to attract much attention and to arouse much controversy. It is perhaps well to remember that the synchronism of Abraham with the period of Hammurabi, and the identification of that King with the Amraphel of the fourteenth of Genesis, are no longer universally accepted. Professor Speiser has presented a serious case for the connection of Abraham's entry into Canaan with an important southward movement of the Hurrians about

the seventeenth century B.C. He has also offered evidence for parallels between the Hurrian laws and the early social conditions of the Hebrews in the time of Abraham and Jacob. If these arguments should be substantiated by further discoveries, then the significance of the evidence from Ur will be reduced to the possibility that they offer material for a picture of the earliest environment of the ancestors of the Hebrew people, who, according to their own tradition, originally came from Ur.

The return of the Wellcome Archæological Research Expedition from the scene of its fourth year's labours at Lachish is announced. The excavation of the city has been carried a stage further. An open square or market-place has been laid bare, revealing shops and workshops devoted to weaving and dyeing. Among the debris of one of the shops there was found a seal bearing on its back the impress of a papyrus document to which it had been attached, and on the front the legend "Helkiah, the son of Maas." The father of the prophet Jeremiah bore the name Hilkiah, and the seal was found in the debris of his period, but the name was probably not an uncommon one.

In a fourteenth century tomb at the foot of the Tell there were found the skeletons of 600 men who may have been slain at the time of Sennacherib's siege of Lachish about 700 B.C., and their bodies thrown into this ancient sepulchre. Under the ruins of the Israelite temple already excavated, the remains of two earlier temples have been discovered and much pottery, including a piece of decorated Aegean ware of the Hellenic period, 1500-1400 B.C. By the time this appears the new finds will be on exhibition at the Wellcome Archæological Museum.

WANTED 'QUARTERLY STATEMENT' BACK NUMBERS.—The office will be glad to receive copies of *July*, 1921, and *October*, 1934.

Many readers will be interested to learn that a Palestine Folk Museum has been founded in Jerusalem, to be housed at the

Citadel, and the following is quoted from a leaflet on the subject which we have recently received :—

" Western civilisation is rapidly transforming the traditional life of the East. Nowhere is the process taking place more quickly and completely than in Palestine. Differences in handicraft, custom and dress, which used to distinguish one district from another, are disappearing as communications improve and a new civilisation spreads all over the country. Much that is of historical interest and intrinsic beauty will be lost if action is not taken at once to rescue at least some part of it. Our generation will probably see the end of a phase of life which has survived from early medieval times.

" It rests therefore with the people of today to preserve as full and rich a record as possible of this passing civilisation. In a few years it will be too late ; the opportunity will have gone and the records will have vanished."

His Excellency, the High Commissioner, Lt.-General Sir Arthur Wauchope, G.C.M.G., etc., is Patron. Further information is obtainable from the Hon. Secretary, Mrs. V. Barbour, P.O.B. Citadel 999, Jerusalem.

The Committee have to acknowledge with thanks the following :—

The Antiquaries Journal, XVI, 2.

The Expository Times, April-June 1936. The Prophet in Israelite Worship, by A. R. Johnson (April) ; The Early Post-Exilic Community, by W. O. E. Oesterley (May) ; Recent Biblical Archæology, by J. W. Jack (June).

Religions, April, 1936. The Iranian Religion at the time of Darius and Xerxes, by E. Herzfeld.

The Scottish Geographical Magazine, 52, 3.

Great Britain and the East, April-June, 1936.

New Judea, March-May, 1936.

The American Journal of Philology, LVII, 2.

The American Journal of Semitic Languages and Literatures, LII, 3. Problems in Job, by G. R. Driver. The Seal of Elamar, by H. G. May.

Bulletin of the American Schools of Oriental Research, April, 1936. On Some recent finds from Tepe Gawra, by E. A. Speiser; The Song of Deborah in the Light of Archæology, by W. F. Albright.

Bulletin of the Metropolitan Museum of New York, March-May, 1936.

The Geographical Review, April, 1936.

The Jewish Quarterly Review, April, 1936.

Journal of the American Oriental Society, 56, I. Studies in Semitic Formatives, by E. A. Speiser.

Nouvelle Revue Théologique, April-June, 1936.

Revue Biblique, April, 1936. Crise et effrondrement de la monarchie davidique, by R. P. P. Lemaire.

Syria, XVII, I. Notes d'archéologie syrienne et hittite, III. Quelques nouveaux monuments de Marash, by S. Przeworski.

Mitteilungen des deutschen archäologischen Instituts: Athenische Abteilung, bd. 59.

Orientalistische Literaturzeitung, April-June, 1936. Reviews of: H. de Genouillac, Fouilles de Telloh, by A. Falkenstein and A. Bruno. Das hebräische Epos, by O. Eissfeldt. E. Cavaignac, Subbiluliuma et son temps, by H. G. Guterbock. S. Langdon, Babylonian Menologies and the Semitic Calendars, by W. von Soden. C. Watzinger Denkmäler Palästinas, by J. Hempel.

Zeitschrift für die alttestamentliche Wissenschaft, 12, 4.

Biblica, 17, 2. Notes de lexicographie hebräique (X), by P. Jouon.

Transactions of the Royal Canadian Institute, December, 1935.

Bible Lands, April, 1936.

Al-Mashriq, XXXIV., I.

Leshonenu, I, 2.

NEA ΣΙΩΝ, January-February, 1936.

The Journal of the Palestine Oriental Society, XVI, I. Zabul Yam and Thapit Nahar in the Combat between Baal and the Sea, by W. F. Albright. A Note on Synagogue Orientation, by Helen Rosenau.

PALESTINE EXPLORATION FUND

SEVENTY-FIRST ANNUAL GENERAL MEETING

THE SEVENTY-FIRST ANNUAL MEETING OF the members of the Palestine Exploration Fund was held at 2 Hinde Street, Manchester Square, W.1, on Friday, June 26, 1936, at 4.30 p.m. Sir Charles Marston presiding. Mr. Colin Baly gave a brief account of the papyri found at Auja by the Colt Expedition of the British School of Archæology in Jerusalem, and Professor Garstang lectured on " Jericho : Further Excavations and Conclusions."

Apologies regretting inability to be present were announced from Mr. O. G. S. Crawford, Mr. E. Cecil Curwen, Sir Frederic G. Kenyon, Professor J. L. Myres, Principal Sir George Adam Smith, Mr. Sidney Smith and the Rev. F. G. Wesdom.

Minutes.

The Rev. C. B. Mortlock (*Acting Hon. Secretary*) read the Minutes of the Meeting held on June 27, 1935, and these were confirmed and signed as correct.

Report and Accounts

Sir Charles Close (*Chairman of Executive Committee*), in moving the adoption of the Annual Report and Accounts for the year 1935, already in the hands of subscribers and taken as read, said :

Sir Charles Marston and fellow members of the Palestine Exploration Fund, I beg to move the adoption of the Annual Report and Accounts for the year, 1935. As these have been printed and circulated to Subscribers, you will no doubt wish them to be taken as read.

By the death of His Majesty King George V, the Fund has lost its Patron, who, in early life, had considerable knowledge of the Holy Land, and had journeyed much about the country. The Fund had been privileged in those days, to assist Prince

George, as he then was, for Canon Dalton and Colonel Conder accompanied His Royal Highness on his travels through Palestine. The Archbishop of Canterbury and the Chairman of the Executive Committee have, on behalf of the Fund, submitted to His Majesty King Edward VIII, a humble address of condolence on the great loss sustained by the Royal Family, the Country, and this Fund, and have received a gracious reply through the Home Secretary.

We have, alas ! to deplore the recent and unexpected death of a very distinguished member of the General Committee of the Fund, Field-Marshal Viscount Allenby, whose name will go down to history as that of one of our most distinguished military commanders, whose brilliant campaign in Palestine will ever be an inspiration to students of the military art, and whose breadth of mind and kindness will be a happy memory for all those who had the honour of his friendship.

It is also our sad duty to record, with deep regret, the loss, by death, of the Rev. Thomas Harrison, a good friend of the Fund, who had helped in times past as a lecturer ; of Mr. James Glen, who had been Hon. Treasurer of the Fund for the Glasgow district for more than forty years ; and of the Rev. Professor Adam C. Welch, of Edinburgh, a distinguished Biblical scholar.

Our Hon. Secretary, Dr. E. W. G. Masterman, who has served the Fund in that capacity with conspicuous success for the last seventeen years, and was previously for a long period resident in Palestine and has an exceptional knowledge of the country, has returned to the East for, it is understood a year or two, to take charge of the C.M.S. Hospital at Es Salt in Trans-Jordan. We shall feel his absence very much, but he will remain a member of the Executive Committee and I am glad to be able to announce that his place as Hon. Secretary will be filled by the Rev. C. B. Mortlock, to whom we are much indebted for consenting to serve in that post. Mr. Mortlock knows Palestine well, has lectured before our Society, and has written much on subjects of interest to us in the press.

I should now like to be permitted to take this opportunity of saying a few words on the subject of the proposed Archæological Survey of Palestine, dealing especially with the origin of the idea, and the purpose and methods of such a Survey.

The original idea of undertaking a new revised, accurate and complete Archæological Survey, on modern lines, may be confidently ascribed to Professor John Garstang, who some years ago raised the question before the Executive Committee. Then, a few years later, the Bishop of Rochester, a member of the Executive Committee, suggested the preparation of a list and a Map of the Excavated Sites. This was soon done and naturally led to the consideration of the possibility of a complete survey of all the antiquities of the Holy Land, excavated or unexcavated.

Then, in the Spring, of 1935, the Chairman of the Executive Committee was authorised, on behalf of the Fund and of the British School of Archæology in Jerusalem, during a visit to Palestine, to discuss the matter with the High Commissioner, who expressed himself as generally favourable to the idea. The matter was formally placed before the Colonial Office more than a year ago, and we have good hope of some financial support from the Palestine Government. But, as we all know, that Government and the Colonial Office have just now, other things to think about.

The scheme involves the cooperation of the Fund and the School in the Archæological Survey, as their joint work, over a period of seven years. It does not necessarily involve abstention from excavation, should favourable opportunities for this occur.

Now, what is an Archæological Survey? It is a complete and scientific stock-taking of the relics of the past in the country dealt with, from the remotest antiquity up to some date, which might, perhaps, be the year 1700 A.D. The field covers the dim palæolithic and neolithic periods followed by the Bronze and the Early Iron Ages, through the period of the Kings, the Exile, the Return, the Hellenistic Age, the Roman occupation, the Byzantine period, and so on until we reach comparatively

modern times. It has been suggested that some account might be given of the more important events and sites of Allenby's campaign, which has several historical parallels of great interest. Such a Survey will include descriptions, drawings and photographs of sites, tells, bridges, fortresses, churches, synagogues, mosques and buildings of all kinds. It will also include accounts of excavations and discoveries, and notes on the writings of early travellers, and indeed anything which, from an archæological point of view, may bear on the history of the past, including of course, the identification of Biblical sites.

The Survey would, as approved by the Joint Advisory Council, be carried out systematically, proceeding to investigate the country covered by the sheets of the official map of Palestine on the scale of 1 : 100,000, taking up the work sheet by sheet, and publishing the results in a series of memoirs, which would be generally similar to, and perhaps more handy than, the volumes of that magnificent work of our predecessors the Survey of Western Palestine. This was a pioneer work, and it suffers from the chief defect of such works in that its archæology is incomplete and defective, although its descriptions and drawings are of great value.

It will be noticed that the construction of an archæological map, as such, is not mentioned in the above outline. Maps will form part of the memoirs, but their use is ancillary only. The Survey will be based largely upon the methods of the Royal Commission on Ancient Monuments (Great Britain). Let me, in conclusion, quote from an Editorial note in the issue of *Antiquity* for June 1936: "The idea of such an Archæological Survey deserves to be widely circulated, because it has a great future, and is applicable also to other regions. What would not one give for Reports describing, on Royal Commission lines, the antiquities of Mesopotamia!

Colonel Newcombe (*Hon. Treasurer*) seconded the motion and expressed pleasure that the Fund had at last a little money to spend, though only sufficient to make it possible to start the Archæological Survey and, without ignominy, ask friends and

others to help forward that work. It was important not only to obtain funds but to increase and widen the interests and activities of the Palestine Exploration Fund, which activities were, of course, not entirely archæological. The Fund was anxious to start next April a biological survey in the Lake Huleh basin in which there were flora and fauna and pond life of much scientific interest, and which should be studied before the lake was finally drained, as was proposed, for purposes of irrigation and cultivation. Last autumn Mr. Washbourn and Mr. Jones had visited Lake Huleh and as a result of a preliminary study had obtained a certain amount of evidence. The pond life of the lake was apparently Ethiopic not palæo-Arctic, which meant that it was connected with the East African lakes and not with the flora and fauna of the rest of Palestine. April and May next year would provide the only opportunity of completing the studies started by Mr. Washbourn and Mr. Jones. Incidentally, it was desired to study also the migration of birds in the area, migration which would be altered as soon as the lake had been drained.

Mr. W. C. Edwards : Sir Charles Marston, before the motion is put I should like to express, on behalf of several of the members, our disapproval of the character of some of the notes that have appeared in the April *Quarterly Statement*. You, sir, will remember that I called attention to this subject some three years ago. This Fund was started by Christian people and very largely for the purpose of demonstrating to the unbelieving world the truth of the story as recorded in the Bible. Our work has been largely biblical. Recently I was reading the beautiful book by Captain Warren, in which he points out that this work is demonstrating in a extraordinary way the accuracy of the Bible account. I am almost ashamed to have to try to say what I have to when I think of you, Mr. Chairman, and all you have done. The immense amount of energy and time you have spent on your constant visits to the Holy Land, to say nothing of generous subscription, has enabled an examination of Jericho to be made in a most remarkable manner. I am only a sort of amateur excavator. I have done some excavations in the City

of London, and have been twice to Jericho and seen the work done there. I might have brought with me today some of the charred wood that I cut out of the fire line which is at Jericho. I consider that if anything has ever been proved of the absolute truth of the biblical narrative, the taking of Jericho has been proved.

On page 54 of the April *Quarterly Statement* we are told that some excavations made by some French people at Ai will cause some perplexity to those who pin their faith simply to the spade. I am one of those who believe in spade work and have grave doubts of the critical methods of modern times. I think the spade is about the only thing one can be sure of. We were told many years ago, if you show us where Nineveh is we will believe your Bible. Go to the British Museum and you will see that the spade has brought it out and that the spade has also done splendid work in Jericho. The article goes on to say that "biblical criticism has called attention to the legendary nature of the account of the taking of Jericho. It is clear"—oh, the cocksureness of all these biblical critics—"It is clear that these accounts are intended to furnish a ritual justification for taking possession of the site . . . The results of the excavations at Jericho have led many biblical students to admit that this city was already destroyed when the Israelites appeared before it . . . competent judges—only these people are competent; nobody else—"competent judges are led to the conclusion that the narratives describing the capture of Ai are no more historical than those which describe the crossing of the Jordan or the fall of Jericho . . . It destroys all the attempts at harmonisation hitherto in favour." If that is going to be the attitude of this society that was started by Christian people, many will think that the time has come to join the Jews in carrying on such excavations as may be necessary. I hope, sir, that my second protest in this matter will lead to a change in tone, and that it will be understood that if you want to have interest in your work in Palestine you will have to enlist on your side the Christians who believe in the Bible and the Jews

who believe and who say when they hold up the Book of the Law: "Behold the Book of the Law from the mouth of the Eternal by the hand of Moses." I beg to protest very strongly against the tone of that article and hope it will not be repeated.

THE CHAIRMAN: (Professor HOOKE, the Editor of the *Quarterly Statement*) is present. Perhaps the meeting would like to hear a few words from him on the subject.

Prof. S. H. HOOKE: I can very deeply sympathise with Mr. Edwards' protest, the more so that I was myself brought up in the atmosphere which he still so admirably represents. I think you would wish to hear from me what my own attitude is with regard to the conduct of the QUARTERLY STATEMENT, but I should like to say before offering an explanation that I have asked the Committee to accept my resignation as Editor of the QUARTERLY STATEMENT, if it should be their wish, to relieve them of any embarrassment in facing members of the Fund.

First of all, I should like to say that I have always regarded it as very dangerous to run away from those things which are dangerous. I think danger should be faced. The paragraph which Mr. Edwards read, which he did not explain to you the author of, or the reason why, it was inserted, was a quotation which I made from a well-known French scholar and archæologist, Professor Dussaud of Palestine. Professor Dussaud, commenting on the American excavation of Ai, wrote the words which Mr. Edwards, justly no doubt, took exception to. I quoted those words in order to show what was being written about excavation; in order to show, in the first place, that it is not a safe thing to pin one's faith too closely to the spade. I do not believe that either Christianity or the truth of the Bible can be proved by the spade, though a most valuable adjunct, wisely used. We should and we do, as our attitude as a society shows, attach a great deal of importance to the spade, but in the last resort it is not the only aid to ultimate proof of ultimate realities. Those can be proved neither by print nor spade.

Secondly, I printed those words in order to draw from

people whom I knew were interested in the subject, and who were competent to discuss it, some comments on the arguments which Professor Dussaud put forward, arguments with which I did not myself agree. I hoped that people like Canon Phythian-Adams or Professor Garstang would deal with the remarks by Professor Dussaud and, indeed, I immediately received from Canon Phythian-Adams a very able article which you will all be able to read in the next issue of the QUARTERLY STATEMENT, an article dealing faithfully with Professor Dussaud's arguments. We would never have had that article if I had not printed Professor Dussaud's words in order to draw forth refutation of them. We shall probably hear from Professor Garstang also important and valuable words on the work in which he has played such a very distinguished part.

I should like to add our gratitude to Sir Charles Marston also for the way in which he has assisted so admirably, not only by his money but also by his energy and interest and his own writing, the cause in which we are all profoundly interested.

Those are two reasons, ladies and gentlemen, why I printed these words. If it is not your wish that that kind of policy should be followed, perhaps you would rather follow the line which reminds me of a story my father told me when I was much younger of the time when there was a most disturbing controversy over a matter which we have now almost forgotten, the Darwin-Huxley controversy. A young lady who had heard Mr. Huxley lecture returned home to her mother in a state of flutter, as the phrase was in those days, and said, "Mr. Huxley has been saying we were all descended from monkeys," whereupon her mother replied, "My dear, let us hope that these things are not true, but if they are let us pray that nobody may get to know about them." I am sure it is not our attitude today to refuse to face the things that are there to be faced. Rather our business is to meet them and deal with them graciously and faithfully. If it is your wish that the QUARTERLY STATEMENT shall proceed on those lines, I hope you will signify. If

not, my resignation is in your hands.

THE CHAIRMAN: Would Professor Garstang like to add a word or two on this point?

PROFESSOR GARSTANG: I do not know really that I would like to say anything about the matter because I think we all sympathise so much with both the previous speakers. The whole thing is, I think, a misunderstanding. If the inverted commas indicating that the passage in question was a quotation had been put in scrupulously—and perhaps the Editor is a little to be blamed for that small omission—we should all have known that he was not voicing his own sentiments, but informing us of the attitude of a very distinguished scholar towards this problem. We sympathise with Mr. Edwards in bringing the point forward and at the same time feel inclined to congratulate the Editor on having successfully drawn red herrings across the paths of various people, including Canon Phythian Adams, and thus eliciting a contribution for the next number of the QUARTERLY STATEMENT. I really feel there is little more to be said now that we realise this was a quotation from Professor Dussaud. The members of the P.E.F. have a right to know and have inserted in their journal what other scholars are thinking about the progress of excavations and the interpretation to be placed upon them. As regards Ai in particular, it is a very large site which has been only partially excavated. It has been excavated very deeply in parts, but I have been informed —I am open to correction—that the part of the area underneath the Iron Age city has not yet been examined. However, that is hearsay. Unfortunately, I have not been able to visit the site since the excavations made there, but I do know, and can vouch for this fact: that in 1927 when I did examine the site for a few days with Sir Charles Marston's assistance, we found Late Bronze Age fragments upon the surface—there were relatively few—and a considerable sprinkling of Middle Bronze Age. In the recent excavations nearly all the discovery has related to the earlier settlement of the site. That fact does really involve a problem. There is no doubt—this is

confirmed by the collections made, and Dr. Albright, the American scholar and archæologist, has time after time referred to it in his publications—there is no doubt that a later element did exist at one time upon that area. I do not want to pursue that far because of various other factors. In the first place, it is not demonstrated, as for instance in the case of Jericho, that this is really the site of Ai. It certainly conforms with the biblical description. I believe it to be the only site that does so conform in that area, and the probability is that it is the real site, but there does remain an element of doubt. The fact remains that Ai stands upon the top of a hill and our experience in Jericho has shown that once a site has been burned it is liable to denudation. And when it stands upon a hill-top, as in this case, it does not surprise we to hear that all signs, or nearly all the material signs, of buildings and so forth of the last phase of the Bronze Age occupation have disappeared. But the traces in pottery, which is, happily, indestructible, have certainly been found, and, as I said, they have been referred to time after time in discussions by Dr. Albright. In particular might I draw your attention to a reference in a passage in the *Annals of the American School of Oriental Research*, Vol. XIII. p. 85, and there are numerous other references. So that the material does exist (there is no proof that there was any Late Bronze Age occupation of Ai) simply in the fact that excavations going on of late have discovered a very extensive and much older foundation to the city. That is really, I think, the important factor in all this. So long as there remains a doubt, the evidence of the excavation of Ai is incomplete and it cannot be adduced in argument either as to the conquest of Palestine or the date of the exodus. You have (*a*) that the Late Bronze Age settlement has not been located and (*b*) that there is some doubt about the actual identity of the site of El Tel with the Biblical Ai. I consider, in my own mind—and I hope Mr. Edwards is satisfied too—that the putting of the inverted commas into the text of the quotation removes the difficulty that many members may have felt when they read the paragraph which he has very

properly called attention to.

THE CHAIRMAN: I do not think—I say this personally—that after the many years in which Professor Garstang has excavated Jericho that a cursory excavation of what is alleged to be the site of Ai is sufficient to seriously interfere with his conclusions, especially as we have the valuable report of the *Annals of the American School of Oriental Research* to the effect that they, too, have found cooking-pot rims of the Middle and Late Bronze Age on the site of Ai. Whoever made those excavations ought certainly to have taken account of these facts because it is one thing to spend a season digging on an ancient site of the extent of Ai and quite another to be excavating at Jericho year after year, as Professor Garstang has done. With everybody's approval I propose to continue the programme of the meeting.

The motion for the adoption of the Report and Accounts was then put by the Chairman and declared carried unanimously.

ELECTION OF EXECUTIVE COMMITTEE.

DR. G. LYDSTON CRIMP proposed the election of the Executive Committee as follows:

Chairman: Sir Charles Close.

Hon, Treasurers: Sir Robert Mond and Colonel Stewart F. Newcombe.

Hon. Secretary: Rev. C. B. Mortlock

Professor S. A. Cook.	Sir Charles Marston.
O. G. S. Crawford, Esq.	Dr. E. W. G. Masterman.
E. Cecil Curwen, Esq.	Professor J. L. Myres.
Professor J. Garstang.	The Bishop of Rochester.
Professor S. H. Hooke.	Sidney Smith, Esq.
A. M. Hyamson, Esq.	Brig.-General E. M. P. Stewart.
Sir Frederic Kenyon.	J. W. Crowfoot, Esq.

In view of the discussion which had taken place Dr. Crimp thought it right to express one other point of view. He took it that actually members were not there to discuss the rights or wrongs of a particular theory. The point was what sort of

society was that to be? Was it to be a society for the due excavation and understanding of matters brought to light in a proper and scientific manner, or was it to be a matter of emotion as to whether one particular statement or another did or did not support some Fundamentalist idea on the subject of the words of the Bible? The question of one's religious views had nothing to do with the question of one's scientific attitude. He took it that the vote of members on the motion he had proposed would decide whether the society was to be carried on as a scientific society or as a very narrow and emotional group of individuals.

The Chairman expressed the opinion that the speaker was digressing a little from the motion and added that the constitution of the society was not in question. Members were being asked to elect the Executive Committee.

Mr. Harold Shepstone seconded the motion and it was carried unanimously.

Appointment of Auditors.

Mr. W. H. Boulton proposed and Mr. A. M. Hyamson seconded the appointment of Messrs. Turquand, Youngs & Co., as Auditors for the year 1936, and this was put and carried unanimously.

The Chairman: Ladies and Gentlemen, It is now my duty, as Chairman of the Meeting, to say a few words to you. In doing so I would like, first of all, to congratulate Sir Charles Close and the Executive Committee on the very effective way in which the Palestine Exploration Fund is being brought up to a proper standard and the excellent improvements that have been made during the past few years. (*Applause.*)

We hear a great deal about how to make money, and no doubt a number of the ablest brains in the world are devoted to the accumulation of wealth. By so doing they are benefiting society to a marvellous extent, whatever our Socialist friends say to the contrary. But I am not so sure that the ablest brains in the world are always devoted to deciding how best

to spend the wealth they acquire. I suggest that a good many men spend their wealth on aims and objects which do not really give them a great deal of satisfaction. I am not a wealthy man, but I have derived much satisfaction during the past twelve years from spending my money on excavations in Bible lands. (*Applause.*) I believe I am doing it from a strictly scientific point of view. The word "science" has, unfortunately, been so misused during the past two generations that people have but a vague idea what it really means, and when anybody uses the word in an address people take it as though the speaker were expounding the truth. I remember hearing a man broadcasting, and in every single sentence he used the word "science" with a view to putting over some half-baked theories on the subject of socialistic propaganda. A man has no right to do that. The first thing we have to do is to clear our minds on the subject of science. Science is not a matter of theory. Science is a matter of observed facts. It is the evidence of observed facts which is so important in all branches of science. That is why I have felt that excavations in Bible lands were of the first importance. Rightly or wrongly, I regard the scientific criticism of the Bible as based upon conjecture to such an extent that it was unreliable, and dangerous to accept it.

A recent book by one of the leading authorities on the science of psychology is that by Dr. Linke of New York entitled *The Return to Religion*. Dr. Linke points out from experience, that is from a truly scientific point of view, that what the world needs today is a return to religion. I feel just the same way myself. I have just come round the world and I believe that the prevailing unrest is due to a lack of religion. The Bible is the basis of a very large proportion of the religion of this country. It is the basis of a large proportion of the religions of the world. It is interesting to note that our race first began to rise into prominence when the Bible was translated into the English language, and that the spread of the Bible throughout world has been synonymous with the spread of the English-speaking races. The United States even more than this country

may be said to have started and developed its civilisation on the basis of the Bible. Therefore I think you will understand, ladies and gentlemen, how, following this line of thought, I have regarded the digging up of evidence left behind by men who were contemporaries of Bible characters, contemporaries of such men as Abraham or Moses or Joshua or the Kings of Israel and Judah, as of the greatest possible importance in enabling us to find out where we really stand so far as the Old Testament is concerned.

Rightly or wrongly, I have in the course of an industrial life endeavoured to pick out realities, because if you are going to make money in this world it is necessary to select the realities and avoid side issues. I think the same sense of perspective is important in matters connected with archæology, whether biblical or otherwise. I have not read a book on the subject recently but surely the time has come when somebody should point out the extraordinary value of tradition as demonstrated by archæology. Most of the ancient traditions of the world seem to have some considerable evidence in their favour from the archæological point of view. I have in mind, for example the excavations at Knossos in Crete ; the excavations at Troy undertaken many years ago by Dr. Schliemann, and there are many others, all tending to suggest that to ignore or disregard tradition in favour of speculations and conjectures of what it is thought ought to have happened is a great mistake. I feel the same way, and more so, so far as the Bible is concerned. The value of the Bible from a critical point of view is infinitely higher than some of the scholars of the last two generations have ascribed to it. On the other hand, the value of conjecture and speculation, which has been evolved in a remarkable way, is very small unless it has been checked and proved to be correct step by step by the observed facts of archæology. I therefore want to do today what the great scientists of the world are beginning to do. They are emphasising the absolute importance of observed facts, and evidence derived from observed facts, as opposed to speculation and conjecture, on which so many of our sciences have unfortunately been based.

I do not propose to take up any more of your time because you are naturally anxious to hear our two speakers, but I sincerely hope this Fund will flourish. It will, in my opinion, flourish to the extent to which it devotes itself to the discovery and investigation of ancient Bible civilisation, which is of greater importance at the present time than perhaps any of us realise. (*Applause.*)

Mr. COLIN BALY then gave a brief account of the Papyri found at Auja by the Colt Expedition of the British School of Archæology in Jerusalem, as follows :

The Expedition commenced work at S'baita in December but the water situation quickly became grave and on the 27th of the month we were forced to transfer our activities to Auja at Hafir where there was a well available. I had cleared the two churches at Auja in November and the information then gained showed that the site was worthy of more extensive clearance. The results of the season's work may be briefly stated. Including the November work two churches and their accompanying rooms were excavated and the large fort which occupies the rest of the hill-top was cleared as far as was practicable in view of the existence of a large Turkish hospital in the middle of it. As far as can be seen an almost complete plan was obtained. Further, certain trenchings were made in the side of the hill in an attempt, unfortunately vain, to establish a stratification for the pottery. But, though stratification was unobtainable, a fine series of pottery stretching from the third century B.C. to Arab times, probably as late as the fourteenth century, was found during the course of the work. A corpus of shapes has been formed and an intensive study of the pottery of a dark period in Palestinian archæology initiated.

The Papyrus was the season's greatest find. It came from two rooms, one attached to the south church and one to the north. In both cases it clearly formed part of a rubbish dump.

In view of the republication of Woolley—Lawrence *The Wilderness of Zin*, it is perhaps worth noting that the north church of our excavations was not visible in his time and corresponds to the " keep " of his plan of the fort.

The expedition consisted of Mr. H. Dunscombe Colt (Director), Mr. T. J. Colin Baly, Mr. W. Kendall, Miss S. P. Burton, Mr. H. E. Bird, Mr. L. J. Upton Way, Mr. E. Kirk, and Miss J. de la Motte, while we were joined later in the season by Mr. W. S. Taylor.

Professor John Garstang prefaced his lecture on ' Jericho : Further Excavations and Conclusions,' by showing a slide of the site of Ai in regard to which he said :

Ai is perched on the top of a very steep hill, and during the soundings I made in 1927 I discovered that the whole of the line of rampart is nothing more than a pile of débris. Examinations showed that that débris consisted entirely of stone chippings from the original stones of the rampart. So that for a great number of years, from Byzantine time onwards, the site of that historic settlement has been pillaged for building stone. I have no doubt whatever that that pillaging has gone on in many areas and sites, but it does indicate how easy it would be for the summit of the hill to have been denuded, especially in view of the fact that during the war, as my notes remind me, the site was used for artillery purposes by British troops, the traces of whom are still visible. Age after age that site has been not only subjected to denudation by Nature, but has been actually pillaged consistently for building stone by nighbouring villages. It is not surprising that the traces of the latest phase of the Bronze Age occupation are so nebulous and difficult to locate.

JERICHO.

Low-Level Excavations.

Discussing discoveries appertaining to the Early Bronze and Prehistoric (neolithic) periods, Professor Garstang said that last year's results showed below the successive layers of the Early Bronze Age (B.C. 2000—B.C. 3300), an unprecedented depth of prehistoric levels, accompanied by plastic images painted handmade pottery, and houses with plastered floors and walls. The culture seemed to be neolithic, and to be linked in its depths with the mesolithic cultures of the old

Stone Age, the date of the earliest deposits being estimated by specialists at about 6000 or 7000 B.C.

This year, in response to a general desire for further information, the area of the low-level excavations was greatly enlarged and the cutting was extended beyond the confines of the later city walls. The Early Bronze Age levels were examined successively, and linked with last year's work. Many fresh observations were made. Two most interesting finds were (*a*) a Minoan-looking bull's head in pottery, Level V., about 2600 B.C., and (*b*) a Babylonian shrine, with associated cult objects, Level VII., 3200 B.C.

Intact House Floors.

The underlying Stone Age levels were then systematically explored upon a new plan. An "index" trench was first cut in low ground outside the city, and in this were found several intact house floors, plastered and burnished, which, being superimposed, enabled the excavators to separate the latest neolithic (hitherto called the Chalcolithic) pottery and flint types from those below. This index trench was linked stage by stage with the main excavation, which was carried down over the whole area to Level XIII., 30 feet below the point of attack.

In the middle neolithic level (IX.) the oldest pottery and the origins of pottery-making were disclosed. A special object was a house model of beehive shape with a door, upper floor and windows.

2,000 Years before Greece.

Below this level no pottery was found, but a fine series of flint implements told of both agriculture, hunting and domestic life. A special feature of Level XI. (about 4,000 B.C.) was a megaron-like building, 2,000 years older than the earliest yet known in prehistoric Greece. Its walls and floors were plastered and burnished red. With it were associated animal figurines indicating pastoral cult, presumably that of the Moon God. Deeper soundings carried its origin down to Level XVII.

Jericho thus appears to have been the site of the oldest known civilised settlement on the globe. Fresh cuttings in

the upper levels confirmed the date of the city's fall about 1400 B.C. after about 5,000 years of almost continuous occupation.

Vote of Thanks.

Sir Robert Mond proposed a most hearty vote of thanks to Sir Charles Marston for presiding, to Professor Garstang and Mr. Colin Baly for their lectures, and to Mr. Colt for having made the work of the Colt Expedition possible. The accounts to which members had just listened corroborated what Sir Charles had said as to the importance of systematic and scientific excavation. Those who had seen the slides would realise what was involved when stratigraphic excavation was undertaken. In the comparatively short distance of 40 or 50 feet it had been necessary to separate out something like sixteen or seventeen layers in order to make a complete study of the site. It was a great satisfaction to an excavator to be able to say with scientific accuracy that a thing belonged to a certain place and could not have got there any other how than it had. Such accuracy could not be arrived at without slow and persistent study. Every time one carried out an excavation one learnt better what errors to avoid; that was one of the advantages of continuous work on one site. All connected with the Fund owed a tremendous debt of gratitude to Sir Charles Marston for enabling work to be carried out. (*Applause.*) It was most gratifying that though the work was not spectacular in the ordinary sense of the word, Professor Garstang had managed to extract an enormous amount of information out of the site at Jericho. Mr. Baly's work had brought to light most interesting documents. Both pieces of work had a particular bearing upon the proposed Archæological Survey referred to by Sir Charles Close. Sir Robert added that he had for many years maintained that in excavating archæological sites one should select them to a large extent according to their relative destructibility. With the rapid increase of the population of the world it was not possible to keep indefinitely intact the various archæological sites awaiting excavation. There were sites which for reasons of their nearness to towns or important road junctions were

doomed to give way to modern utilitarian uses of some form or other. Such sites, if it was thought that archæological evidence was to be obtained from them, should be classified so that they could be tackled first in order leaving until later those it was known would, under proper supervision, be kept intact for subsequent examination. The Archæological Survey would prepare the way for such classification. Once it was known where a site was and what it was likely to contain, then there could be intelligent selection for excavation.

One very simple point arose out of the discussion that had taken place earlier in the proceedings, namely, that however much we knew today we certainly knew a great deal more than those who had gone before and a great deal less than those who would follow us. It would be part of our job to see that those who came after had something left to find out. In that connection, Sir Robert wondered how many realised that many of the books, plans and pictures published today were printed on most perishable material. It was doubtful whether in fifty or one hundred years any of it would be left. Many of the articles shown on the screen had lasted 4,000 or 5,000 years, but he knew exceedingly few things made now, except perhaps some Doulton tiles, which would last another 4,000 or 5,000 years. Professor Flinders Petrie had already drawn attention to that aspect and to the necessity for distributing things in various climates to save them from what the speaker termed the bad will of Nature and the bad will of man. All those matters had to be borne in mind, and it was hoped that as the work of the Fund continued it would be possible to gain not only ampler and wider knowledge and make it more secure now but at the same time more secure for the benefit of those who came after.

The vote of thanks having been carried amid hearty acclamation,

The Chairman expressed his appreciation and thanks and said Sir Robert Mond, as doubtless those present were aware was one of those who had appreciated the value of observed facts. He had been a large contributor to excavations, and had helped the Fund in many ways. (*Applause.*)

It was hoped that many more would come forward in the same way so that instead of the Palestine Exploration Fund and other archæological societies being short of funds they might have such a large accumulation that they really did not know what to do with it all. It seemed that the day of archæology was dawning in that there appeared to be a desire all over the world to ascertain the truth as to what had happened in ages past and which might possibly be the means of revealing to the present age what was likely to happen in ages to come.

Professor Garstang also briefly returned thanks and the proceedings terminated at 6.30 p.m.

Jericho, Ai and the Occupation of Mount Ephraim

By W. J. Phythian-Adams

THE results of the recent excavations at Et Tell referred to in the last QUARTERLY STATEMENT (April, p. 54) are certainly "unexpected," not indeed because of any preconceived ideas about their bearing upon the narrative of Joshua vii. and viii, but because both Dr. Albright and Prof. Garstang reported typical late Bronze Age fragments from this site. The present writer has not seen the excavators' account of their investigations and is not therefore in a position to offer any comment upon the archæological evidence, but since it has been suggested that the results, if confirmed by experts, must throw a grave doubt upon the historicity of the capture and destruction of Jericho by Joshua, he feels bound to lodge a protest against this statement.

It is perhaps an argument of no great weight against this view that Et Tell has never yet been definitely identified with Ai (unless new facts have come to light of which the present writer is unaware) yet in the interest of strictly scientific inquiry this fact may at least be mentioned at the outset. The writer has himself been properly taken to task (and has apologised) for asserting by a slip of the pen that there was definite evidence for the destruction of Jericho by Joshua; and he cannot now forbear to point out that a reference to the "recent excavations at Ai" cannot escape a similar condemnation! Be that as it may, on the assumption (which appears to be by far the most probable one) that Et Tell and Ai are one and the same, it still remains to be shown in what way the excavations on this site affect the evidence from Tell es Sultan.

We may consider first the archæological data. We are told that the site of Et Tell remained unoccupied from 2000–1200 B.C. "The name *ha-Ay*, 'the ruin,' can only have been given to the site after the destruction of the city, that is, after 2000 B.C

From this Mme Marquet concludes that the site was desolate when the Israelites began the conquest of Canaan." This must, of course, be true, and it is true on any view of the Exodus and Invasion : it is true, that is to say, whether the Israelites arrived in 1400 B.C. or only appeared two centuries later. But what does this prove ? It proves nothing at all beyond the fact that the narrative of Joshua vii. and viii. is unhistorical and must be considered (except perhaps for part of the tradition about Achan) to be fictitious. It certainly neither proves nor disproves the evidence of Tell es Sultan nor does it in any way affect the conclusions which may be and have been drawn from it.

Let us once more consider that evidence. The site of Tell es Sultan is without any doubt that of the ancient Jericho. As a result of the excavator's very careful examination both of the city and of its necropolis, the following facts can be definitely stated about it : (1) The last walled city upon the site was destroyed about 1400 B.C.[1] (2) It was completely destroyed by fire, so completely in fact that the store jars which were full to the brim at the time (just after harvest) were consumed with the rest of the city : not a fraction of this rich potential spoil was spared. (3) The walls of this city had been double, with houses built across and upon them and (4) whether from bad building, undermining or earthquake shocks, they had fallen forward down the slope of the mound, with a violence which is evident to this day. Lastly (5) the site was not reoccupied (except for a few houses) till the period of the Israelite monarchy. All these facts and peculiarities (together with the damming of the Jordan at Damieh in recent years) correspond with the facts contained in the narrative of Joshua and its echo in I Kings xvi. 34, both of which are so familiar that they need not be repeated. What prevents us then from identifying the one catastrophe with the other ?

The answer apparently is to point out that " Biblical criticism has called attention to the *legendary* account of the taking of Jericho." Now what, first, do we mean by " legendary " ?

(1) See especially the letter signed by Prof. Garstang and Mr. Alan Rowe in *The Times* April 21, 1936.

Do we mean that the whole story is fictitious? But this is to say that the Israelite editors possessed something very much like clairvoyance, for it is impossible to understand otherwise how their story of the Jordan and Jericho could so closely correspond with facts which were not revealed or correlated till a few years ago! We may surely do better than this! Do we mean, then, by "legendary" that some memory of an actual siege and capture of Jericho (by the Habiru?) was still alive when the Israelites invaded Canaan and that they took this memory over and applied it to their own history, so that what was once told of some other conqueror was now referred to Joshua and his followers? This seems at first sight more reasonable, but when we come to look into it, it bristles with difficulties. Why should the Israelites have borrowed this legend and embellished it with so much wealth of detail? It was intended, we are told, "to furnish a ritual justification for the taking possession of the site." But the singular thing is that they did not take possession of it! Rather they declared it to be under a curse, and their whole story turns upon this point. We are asked to believe, in fact, that though there were numberless places in Canaan the possession of which they might well need to justify by a legend, they did in fact employ this artifice in the sole case of Jericho and then so far from taking possession of it not merely left it unoccupied but solemnly recorded the punishment which its curse brought upon the transgressor. But what again is meant by a "ritual" justification? Are we to understand that the site of the ruined Jericho was in some special manner connected with Israelite religion? But if this were so, in what sense is this statement true? The "ritual" significance of a ruined and abandoned site can surely lie in no other fact than that it was destroyed and abandoned for a "ritual" reason. But what motive can the Israelites have had for retaining a ritual legend of some other people and using it as their own for a site which they did not propose to use at all? Or if it were only the secular details of the legend which they borrowed why did they impose a ritual sense upon these and claim to have "devoted" to Yahweh a place which in fact was deserted when they came? Why, too, did they asso-

ciate this legend with their neighbouring sanctuary at Gilgal—or is this also a purely legendary creation?

Questions such as these have not merely to be asked but to be answered before we can unreservedly follow those biblical critics who have "called attention to the legendary account of the taking of Jericho." It is one thing to recognise that the narrative has been much worked over, that some details (such as the circumambulations led by the Ark) are not necessarily historical, and that others (such as the true objective of the spies) have been perhaps distorted or misunderstood. It is quite another to dismiss the whole account as legendary when so many facts and arguments indicate the very opposite conclusion. We are bound, therefore, to go one step further and to ask what other grounds exist on which these critics base their position. In the necessarily brief note (Q.S., p. 54) with which we are dealing at the moment no reference is made to these further grounds, but it may be assumed that the writer had in mind the very generally held hypothesis that the Israelites crossed the Jordan not opposite Jericho but at Adamah (Damieh) some 18 miles up the Jordan and marched directly westwards upon Shechem: from here the House of Joseph moved southwards upon Bethel and some of the tribes (?) northwards into Galilee (the Judah-Simeon confederacy which included Kenites and Kenizzites having long before this invaded the Negeb and captured Hebron from the south). It would go far beyond the limits of the present article to survey in detail the arguments advanced in support of this view, but some comment upon it seems to be unavoidable. That the Israelites must very early have gained a footing in the central hill-country of Canaan and more particularly in the Makhneh plain to the east of Shechem appears on a careful study both of the facts and of the documents to be a reasonably evident supposition: it is indeed highly probable that they achieved this step not long after their destruction of Jericho. The evidence for this conjecture is certainly complicated and obscure but it may be said briefly to rest upon the high national importance of Shechem (with its Gilgal) both before and after the disruption of the kingdom, an importance which the existing documents have done their best to conceal whether from pro-

Judean or from anti-Samaritan prejudice. All that in fact has survived in these, couched in unambigous language, is to be found in Deut. xi. 29-32, and xxvii. 2-8, and in Joshua viii. 30-35. In the first of these passages Moses is said to have commanded Israel on their arrival in Canaan to "set the blessing on Mount Gerizim and the curse on Mount Ebal": in the second they were to erect stones in Mount Ebal on the "plaister" of which the law was to be inscribed (this was to be done "on the day when ye shall pass over Jordan"): in the third it is narrated how Joshua fulfilled these injunctions. These statements have attracted the attention of many critics, and it has been pointed out that in the last chapter of Joshua (his farewell address) the scene is likewise laid at Shechem and not as one might have expected at Shiloh. The absence of any account of the capture of Mount Ephraim is then emphasised, and it is argued that the original story of a straightforward advance over the Jordan (at Damieh) to Shechem must have been deliberately deleted by later editors who have substituted in its place their legendary account of the siege and destruction of Jericho after a "miraculous" crossing of the Jordan much further to the south. The probability of this conjecture is now (we are to understand) considerably increased by the discovery that the story of the capture of Ai has been proved fictitious.

This is not the place in which to discuss at length the interesting problem of the Israelite occupation of Mount Ephraim. It is enough to say that there is no lack of evidence in favour of a rapid advance on Shechem although it may be doubted whether much confidence ought to be rested in the passages which are usually cited on its behalf. It is in fact somewhat remarkable if our reliance should be placed on the book of Judges rather than on that of Joshua (Q.S., p. 54) that so much stress is laid by the champions of the view outlined above upon two excerpts from the latter book, one of which is obviously an interpolation by the Deuteronomic editors, while the other is no less clearly a "secondary" deposit (of E?). Leaving this, however, on one side, we have still to ask why these suppositions (assuming them to be true) must preclude us from accepting the story of Jericho as historical. Even if the narrative about

the capture of Ai is false, why should it affect the other in even the slightest degree? Even if it can be shown that the first Israelite advance into the hill-country was directed upon Shechem, why should not Jericho have been besieged and captured before this? Let us take first the discredited Joshua vii. and viii. Here, it is true, we find as in the story of Jericho a wealth of detail which strongly suggests a reliable tradition, but it will be noted that the detail in this case is entirely topographical; it is concerned in other words with what any Israelite of any century could pick up for himself by looking around him, not as at Jericho with what could only be disclosed to human eyes by the labours of a modern archæologist. Looking further into the story we may note three points which make the narrative suspect *at least in its present form*. Thus (1) the name of the city itself means a "ruin" and this suggests the possibility (as in the analogous case of Hormah) that the story which follows is (at any rate in part) an aetiological one. (2) We are told that the people of the neighbouring Bethel came to the help of Ai, so that not a man was left in their town, yet in spite of the fact that they seem to have been involved in the general catastrophe ("so that they let none of them remain or escape,") no attempt seems to have been made by Joshua to follow up his victory by seizing Bethel, and we have to wait for news of its ultimate capture till at the beginning of the book of Judges it is reported to have fallen to the House of Joseph. (3) The miraculous effect of Joshua's outstretched javelin may well be described as "legendary." Now none of these points can rightly be taken as decisive against the general truth of the tradition, for any story of this kind is liable to such embellishment and there is no need to dismiss the whole of it as a fable simply because some parts are obviously fictitious. What we require in such cases is some more tangible form of evidence (such as that of archæology), and until we possess it our wisest course is to accept the story provisionally and in its bare essentials. It is stated that we are now in possession of such evidence from the site of Et Tell which as has been said above is most probably to be identified with Ai and that this evidence definitely demonstrates that the site was already in ruins before the earliest date

at which the Israelites under Joshua could have approached it. If this is so, it follows that the story must be rejected as unhistorical and we must face the fact that so far as the present narrative is concerned there is a conspicuous gap between the fall of Jericho and the treaty with the Gibeonites. It should, however, be noted at the same time that such a gap already existed and that the interposition of these two chapters which are now to be condemned did little more than conceal it. The truth is that the "Ai" episode stands entirely by itself in the history of the conquest and can be deleted without affecting the general issue; for the great victory which it records is not said to have given Israel command of the neighbouring heights or even to have secured them in possession of Bethel. Indeed, if we are to recognise this story as fictitious we may find that this fact affords a better explanation of its inconclusive character than was available while it was accepted as true. There is, as we have said, a gap here, a gap in which the Israelite occupation of Mount Ephraim in the neighbourhood of Shechem must originally have been recorded. Whether, indeed, Joshua first made an abortive attempt to gain a footing on the mountains around Bethel and was driven back with some loss may be a matter for conjecture: it is possible, in that event, that some story of this repulse lies hidden in the "Ai" narrative.

Be that as it may, it seems highly probable as has been said above that from Jericho the Israelites moved northwards and then north-westwards by one of the routes which give comparatively easy access to the Makhneh plain. Here to this day the circular ruin of Juleijil crowns a hill-top immediately facing the great gap between Ebal and Gerizim, and here we may presume was that Gilgal in which the Ark remained secure until the pressure of enemy invasion (Egyptian or Philistine) forced it to take refuge in the neighbourhood of the modern Seilun. Here, in a word, was the first semi-permanent encampment of Israel (as the name of the plain itself seems to testify), and here was the Nation's first great central Sanctuary, consecrated by the memories of Abraham and Jacob and by the bones of Joseph.

That such a place is almost entirely passed over in our existing documents need not surprise us when we remember

the later history of Israel, more particularly the establishment by Josiah of the single sanctuary at Jerusalem and the long and bitter controversies between the Jews and the Samaritans. But that no record of the occupation of these regions by Joshua originally found a place in the historical traditions of Israel may be regarded as incredible. We must suppose rather that the story of this achievement (whether it was by peaceful means or by force of arms) must have been cherished for centuries by the northern kingdom and that when all mention of it was omitted by the Judean editors, the need of supplementing the meagre narrative which remained must have been strongly felt. Is it not, therefore, possible that the story of Ai was introduced at this point to serve this purpose? It may well have been that such a tale had long been told in Israel as an explanation of the name of this "ruined" site and if some actual memory of the punishment of Achan (perhaps a traditional heap of stones) still survived likewise, the two may have been drawn together to make a single episode. The events which followed—notably the making of the treaty with the Hivites—were then described as if Israel were still encamped at the Gilgal by Jericho, when in our view they had by this time erected a new Gilgal opposite Shechem (the confusion of these two sanctuaries can actually be seen very clearly in Deut. xi. 30, where the reference to the "Canaanites" and the "Arabah," *i.e.*, the Jordan valley, has been interpolated so forcibly as to make nonsense of the passage). This at any rate is a reasonable conjecture where guesswork must be our nearest approach to probability, but even if it be proved erroneous, no greater harm will be done than the leaving of a gap which some better theory must attempt to fill. The gap is there, as most modern critics are agreed, and no purpose is served by our refusal to acknowledge it: where the difference comes between those who accept the "Jericho" story and those who regard it as "legendary" lies in the problem not of its existence but of its size. It may be hoped that the foregoing arguments will have done something to show that the more sceptical of these standpoints is in reality a perverse one. Must we not indeed suspect that behind this airy disregard of the circumstantial evidence which the excava-

tion of Jericho has revealed we can perceive the old and apparently impregnable prejudice in favour of a much later date for the Exodus and Invasion? If the Israelites only appeared before Jericho in about 1200 B.C., they must have found it, like Ai, a ruined and abandoned site: hence it must follow that since *ex hypothesi* they did arrive then, their claim to have destroyed it must be "legendary"! It is a satisfaction to know that more and more scholars are beginning to recognise the defects of a theory which can entangle its adherents in so strange an argument.

Late Chalcolithic Pottery from 'Affûleh

By E. L. Sukenik, Hebrew University, Jerusalem

The last few years of archæological research in Palestine have brought a great increase in our knowledge of the early culture in this country. Thanks to the recent excavations in Tuleilât el-Ghassûl, Wâdi Ghazzeh, Megiddo and Beth-shan we have gained a knowledge of these remote, hitherto unknown periods.[1]

Of special importance for the study of the pottery dealt with in this paper, are the excavations at Megiddo[2] and Beth-shan[3], where a good sequence of stratification was obtained by the excavators enabling us to follow the sequence of pottery from the Chalcolithic Age into the Early Bronze Age.

In this paper, I intend to deal with a collection of pottery found at 'Affûleh in the year 1931. At this time we were engaged in clearing a tomb at Sepphoris. We were living in 'Affûleh and drove daily to Sepphoris to supervise the excavations there. The community of 'Affûleh was then engaged in erecting a tower for their water supply, which is situated a little south-west of the railway station. By digging for the foundations supporting the water tank, at a depth of about two metres from the surface, a quantity of potsherds was discovered. The workmen informed us about it and we collected a number of specimens interesting on account of their shape and burnish, and brought them to Jerusalem. Since this pottery was not found in a stratified area I refrained from publishing them until some later date when we should have an opportunity of making proper excavations on the site.[4] After Engberg and Shipton

1. See Albright's recent learned summary. " Palestine in the Earliest Historical Period." *Journal of the Palestine Oriental Society*, Vol. 15, pp. 193 ff., where a detailed bibliography is also given.

2. Engberg and Shipton, " Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo." (*The Oriental Institute of the University of Chicago, Studies in Ancient Oriental Civilization*, No, 10),

3. G. M. Fitzgerald, Excavations at Beth-shan in 1933, *Q. S.*, July 1934, pp. 123 ff.; *idem*, " The Earliest Pottery of Beth-shan," *The Museum Journal*, Vol. 24. pp. 5 ff.

4. A few years later Dr. Maisler collected pottery of this same place and published some of them in the *Bulletin of the Jewish Palestine Exploration Society*, Number 3, pp. 21 f.

published their researches on stratified pottery of the earliest stages at Megiddo, and FitzGerald his studies on the pottery from the lowest levels at Beth-shan, we are able to assign these specimens to their proper place in the development of Palestinian pottery. 'Affûleh, which is situated in the Plain between Megiddo and Beth-shan, will then become a link between the Western and the Eastern parts of this area.

Among the pottery collected at 'Affûleh there is a considerable number of grey-black burnished bowls. They occur in two types :—

(1) Those having below the everted rim a projecting sinuous line (Pl. I, Figs. 1-3). This sinuous projection varies in degree from slight to prominent swellings. The distance between the rim and projecting line also varies slightly, apparently according to the size of the vessel. The ware is grey-black, light in weight, and is mixed with grits. The burnish varies between black and yellowish grey, disclosing the different nuances between these colours, sometimes showing contrasting shades of burnish in one and the same vessel. The same degree of burnish is applied in the outer and inner surfaces of the vessel. Even pieces of flat, slightly curved-in bottoms show the same high burnish outside and inside. The specimens which we possess of this kind are too fragmentary to enable us to judge the exact size of the vessels ; they certainly belong to bowls of different sizes. Only three fragments were pieced together to enable us to make a restoration (Fig. 1). One fragment which has a mending hole is to be noted. The same fragment has another mending hole which was started from the inside and remained unfinished.

(2) The second type of these grey-burnished bowls (Pl. I, Figs. 4-6) are more or less carinated. They are devoid of the sinuous projection of the former type and have usually an inferior degree of burnishing. The rims in these bowls are more emphasised than in previous types, sometimes being nearly flat and in one case projecting farther outside the body of the vessel.

The first type occurs in Beth-shan, while apparently no such

vessels are found in Megiddo. The second type occurs at Megiddo and is not recorded in Beth-shan.

To a type recorded in both places belong two fragments of bowls with conoid projections (Pl. I, Figs. 7-18). One of them is greyish in colour and does not show any traces of burnishing, but it might be that the burnish is worn away. The other one, of a brownish-red ware, has distinct traces of a reddish-burnishing on the exterior surface and on the rim.

A considerable number of fragments of hole-mouth jars are included among these potsherds. Some of them have a red wash on the outer surface and on the rim, varying from dull red to a bright orange. The different forms of the rim are shown in the accompanying plate (Pl. I, Figs. 9-16). The ware varies between drab and light brown and is mixed with limestone grits and small shiny particles.

A number of necks of jars were found (Pl. I, Figs. 18-22). On some of them clear traces of the wheel are visible. The ware is brown or light red, mixed with shiny particles of different size. Some of them have a reddish wash on the outer surface and on the inner surface of the neck as well.

The bases we collected (Pl. I, Figs. 23-25) are all flat. Some of them belong to coarse vessels having a red wash over them. A few bases belonging to some finer vessels form a sharp angle with the body and have an even surface.

Among the pottery we have, there is one fragment of the upper part of a bowl with a lug handle (Pl. II, Fig. 34). The ware is black-greyish and had possibly originally a grey-black burnish which is now worn away. The interesting feature of this bowl is, that below the handle a slightly projecting, apparently sinuous, band is visible, forming thus a new type of this ware which does not occur at Beth-shan.

Only a few loop-handles occur, one of brown ware with grits whose outer surface is covered with a reddish wash (Pl. II, Fig. 27). It belongs to a thin-walled juglet. The overwhelming majority of handles however, are ledge-handles (Pl. II, Figs. 29-33), some of them belonging to great vessels. They are chiefly covered with a red wash, and nearly all of the indented

type with deep and shallow impressions on the edge. Only a few belong to the plain, narrow and broad types.

To complete the general description of the pottery of 'Affûleh we have to add the few decorated pieces found there. Two rims of hole-mouth jars have at the lower edge of the rim finger-impressions and a row of diagonal nicks respectively (Pl. II. Figs. 36, 35). One handle has four vertical incised marks (Pl. II Fig. 28). On another fragment belonging to the wall of a vessel are the remains of some plastic decoration (Fig. 37). Finally one sherd is painted with dark crossed lines on a yellow background (Fig. 38).

One thickened rounded rim of a hole-mouth jar has vertical shallow indentations on its outer surface (Pl. I Fig. 17).

For comparing the 'Affûleh pottery with Beth-shan and Megiddo we shall consider two of the most important classes of pottery namely the grey-black burnished bowls and the ledge-handles.

The grey-black burnished bowls with a projecting sinuous band appear in Beth-shan in the Levels XVII-XV. As said before they are not found at all in Megiddo. Vessels with conoid projections were found in Beth-shan in Levels XVII and XV and in Megiddo in Stages VII-IV.[5] At the same stages appear in Megiddo the grey-black burnished bowls. The finger-indented ledge-handle which we scarcely meet in Level XVIII in Beth-shan becomes frequent in Level XVII and supersedes all the other types of handles in Level XVI. In Megiddo it is characteristic for Stages VII-IV while it completely disappears in the upper three Stages.

The plain ledge-handles of both the narrow and the broad type occur in Megiddo at the Stages V-III. In Beth-shan the narrow plain ledge-handle is met with already in Level XVIII while in Level XV it is found in equal proportions to the finger-indented.

We may conclude therefore that the pottery of 'Affûleh is not later than Level XV at Beth-shan and Stage IV at Megiddo.

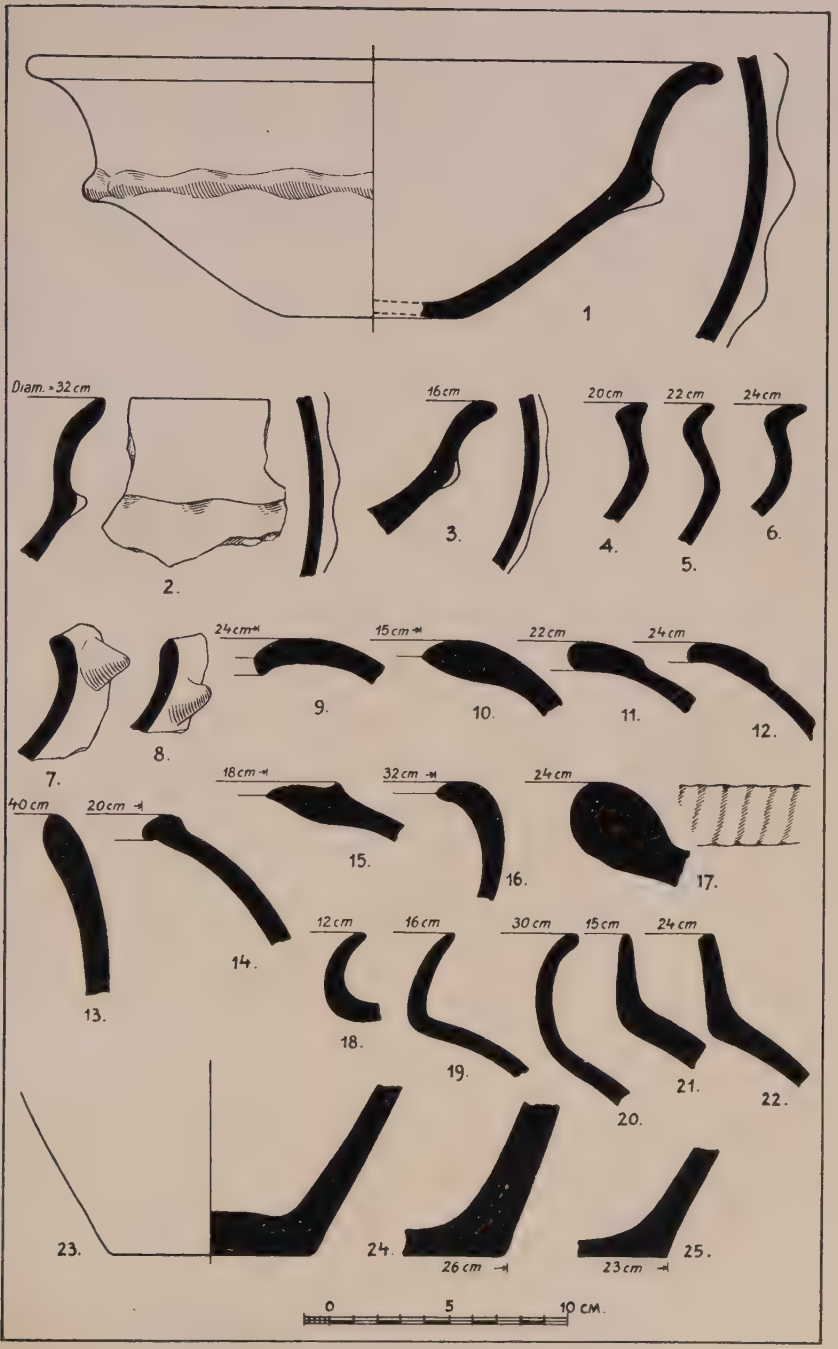
5, Vessels with conoid projections were found also by Macalister at Gezer. cf. "*Excavatons at Gezer*," Vol. 3, Pl. 152, Fig. 19; Pl. 155, Fig. 9.

As an additional comparison between 'Affûleh and the other mentioned places it is worth-while to point out that among the pottery we collected there are fragments of flat bricks which apparently belonged to walls of houses similar to the walls built with flat bricks which FitzGerald found at Beth-shan.

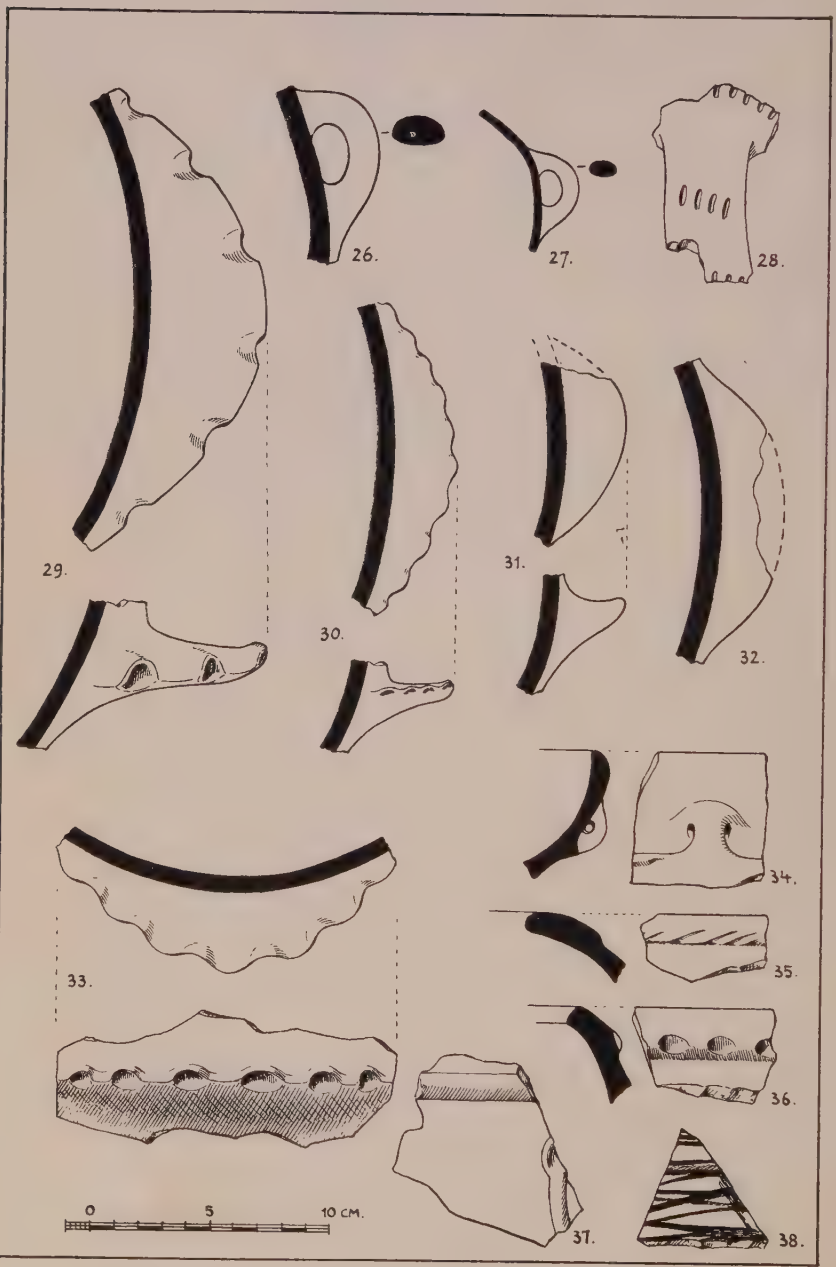
The discovery of the ancient pottery at 'Affûleh is a definite proof of the existence of an ancient settlement at this place. I may add that besides this very early pottery we collected also some vessels belonging to the Late Bronze Age. Among them is a Myceneaan stirrup-vase.[6]

For the history of the place the find of a few vessels belonging to the Iron Age is valuable which were found some years ago by the Jewish inhabitants of the place when they built their houses. Remains of mosaic floors are noted in the area of the "Tell" of 'Affûleh. In 1926 the writer cleared near the road from Jerusalem the remains of a late Byzantine or early Arabic block-house, the walls of which are partly built of old sarcophagi as in the castle at Sepphoris. Among other finds a number of fragments of early Arabic pottery came to light, and close to the foundations of this block-house we found flint implements. We may therefore assume the uninterrupted existence of a settlement here, at least since the Late Bronze Age. Apparently the oldest settlement was situated north-west of the "Tell" where a slight swelling of the ground marks its existence till now.

6. The once proposed identification of 'Affûleh with one of the two Ophels mentioned in the list of conquests by Thotmes III (Conder, "Notes on Biblical Antiquities," *Q. S.*, 1905, p. 155) would therefore receive some confirmation from the archaeological finds.



CHALCOLITHIC POTTERY FROM TELL 'AFFULEH



CHALCOLITHIC POTTERY FROM TELL 'AFFULEH

A Note on an Inscribed Potsherd

By W. E. Staples, M.A.

In the Quarterly Statement of January 1936 under the heading. "Potsherds from Samaria, Inscribed with the Divine Name" No. II. Fig. 2 page 36 (Pl. II Fig. 2), Professor E. L. Sukenik gives his decipherment of an inscribed potsherd as לי ה ו ה.

To me this decipherment is open to several serious objections. It seems extremely doubtful that the Samaritans would write the Divine Name in full at the date he assigns to it viz. the second century. One would expect the abbreviated form יי or perhaps even השם, but not יהוה. There also seems to be no good purpose in inscribing a pot with the Divine Name. A third objection is in the fact that such a decipherment requires a very awkward and complicated grouping of the markings making up the inscription. Professor Sukenik reads the last vertical stroke of the second letter with the third to make a ה and neglects the upper part of a triangle above the horizontal of his third letter. He notes the extraordinary length of the fourth letter. As a waw such a form is extremely irregular, but not as a nun. The final letter which he reads as a ה has its final vertical stroke cutting the angle formed by the vertical and horizontal lines of the ה, a form which is at least unusual. By making a tracing of the sherd and its inscription from the plate a better and an easier reading is immediately apparent.

The fracture of the sherd has cut the lower part of the ל and the tail of the following letter which must be a צ. The ד and the נ are regular. The final letter is obviously a י. Hence we have the word לצדני. The connection between Samaria and Sidon is historical and Phoenician measurements were common throughout the east. I would therefore suggest that we have here a sherd of a pot which contained a Sidonian measure.

Note on a Fragment of an Israelite Stele found at Samaria

By E. L. Sukenik

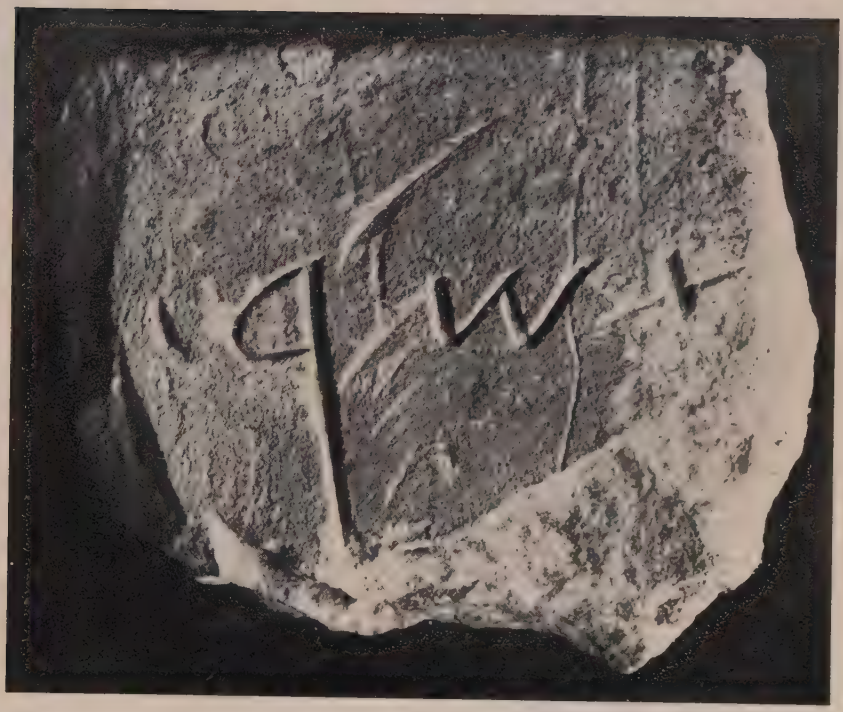
(*Hebrew University, Jerusalem*).

In the first days of July in this year after the completion of the last campaign of the Samaria excavations, during the clearing of debris near the Israelite East Gate by the Department of Antiquities, an inscribed stone was found (Fig. 1). It is a fragment of the upper part of a stele of soft white limestone, broken at the back and on all sides, except at the top. Preserved greatest height about 90 mm, length about 105 mm, thickness about 27 mm. At a distance of about 33 mm. from the top, three letters, widely spaced, followed by a division mark are deeply incised. The last two letters and the division mark are complete. The lower part of the first letter is damaged, but from the traces of incised lines left behind, the nature of this letter could be ascertained. Height of inscribed line about 12 mm, letter below the line extends to about 46 mm.

The division mark on the left is showing the end of the word, but it might be possible that there were still some letters on the right side. Even if the word is complete, the usual absence of *mater lectionis* would allow a number of readings of this word, *e.g.* (ה)אֲשֶׁר or (ו)אֲשֵׁר, etc. But I am inclined to believe, on the ground that the word belongs to the first line of the inscription, that we have here the word אֲשֶׁר and the inscription began with the words: ...מלך ישראל ...הציב [אשר המצבה]

The stele which X king of Israel erected.....

Of course, it could also be an inscription referring to the construction of some important building, but it is useless to go into too much speculation considering the little that is left of the inscription. On the basis of the letters, I would be inclined to assign its date rather to the eighth century than to the ninth But, at any rate, it is the earliest example of Hebrew monumental writing found, and it shows that not only the kings of Juda recorded their deeds in monumental inscriptions, but that this custom was also practised by the kings of Israel.



FRAGMENT OF AN ISRAELITE STELE FROM SAMARIA

Some aspects of the pictorial influence of the Jewish Temple.

By Helen Rosenau

THE fact of the destruction of the Jewish Temple in A.D. 70 was momentous in the history of Judaism but its symbolic importance survived it ; this can be understood not only from ancient texts but perhaps even more clearly from pictorial representations.

On the coins of Bar Kokba (132-135) a building can be seen which is notable for two of its features : although it represents a temple in the usual Hellenistic form it shows no gabled roof but is surmounted by a flat architrave, its middle part between the two adjacent columns containing an object placed in the position which is frequently held by the statue of a god. Fig. 1. Several interpretations have been offered, one being that the building represents the tabernacle, another suggests the shrine for the Scrolls (Torah), and yet another sees in it the temple which the followers of Bar Kokba proposed to restore.[1] The two first arguments can be easily refuted as there is no relation between the Tent described in the Bible and the architecture of the temple clearly represented on the coins. That the coins were meant to show the shrine for the Scrolls is equally misleading as these shrines are depicted either as open cupboards giving the view of the scrolls or as closed cupboards of the same artistic type. But they are never given as buildings and show no architectural features. The idea that the Jewish Temple is represented comes nearer to the truth because the architecture of a temple can be seen on the coins but the question remains if this really expresses its whole meaning as so far no definite clue has been given.

Another possibility is that the temple of Herod is represented. This is not altogether unlikely as the descriptions of Josephus and Middoth are not sufficiently exhaustive to solve

1. *Cp.* G. F. Hill : Catalogue of the Greek coins of Palestine, London 1914, p. LXXXIX ff ; J. C. Sloane in the Jewish Quarterly Review XXV, 1934, p. 1 ff ; A. R. S. Kennedy in his review of Hill's Catalogue in Palestine Exploration Fund's Quarterly Statement, London 1914, p. 198 f.

questions of detail, but there is no reason to assume that an attempt was made to illustrate Herod's temple. Artistically the traditional representation of the Hellenistic temple explains the tetrastyle form on the coins. On the other hand the avoidance of a gabled roof, which is typical for some temples and temple representations, makes it clear that the coin represents the Jewish Temple "the height thereof" being "thirty cubits" (I. Kings vi. 2) *i.e.* a flat roof. That indeed the Temple of Solomon is represented can be proved by the object between the pillars; the first Temple possessed in its Holy of Holies the "כַּפֹּרֶת" the Mercy Seat (Exodus xxxvii. 6) which no longer belonged to the second Temple and its reconstructions (II. Macc. ii. 5-7: I. Macc. iv. 49). The statement of Maccabees is confirmed by Josephus and Joma, Josephus saying that the Holy of Holies was empty, Joma that it possessed a stone on which the high-priests could place the incense.[1]

The most important ritual object which the Jewish Temple ever contained was the Mercy Seat and therefore its representation cannot be surprising. But as the second and subsequent temples possessed no Mercy Seat a detailed representation was not possible and therefore the object depicted on the coin is not distinct. Its artistic form is adapted from types frequent in Roman coinage, such as the "Aureus" of Titus, which represents a seat on the reverse.[2]

The best explanation of the meaning of the coin therefore seems to be one which lays stress on the unique fact of the representation of the Mercy Seat, as the Messianic believer is convinced that the original Temple will be rebuilt in the time of the Messiah.

As Bar Kokba was believed to be the Messiah, his name being interpreted as meaning "Sun of the Star," the relation to the Messianic belief is apparent. This therefore gives some hint towards the explanation of the Temple representation: the

1. F. J. Hollis: The Archaeology of Herod's Temple, London 1934, p. 242; H. Schmidt: Der Heilige Fels in Jerusalem, Tübingen 1933, p. 97 f. Enc. Bibl. iv., 4942.

2. H. M. Mattingly: Coins of the Roman Empire, London 1930, II, pl. 45, 11, 15. I am indebted to Mr. Mattingly for calling my attention in this relation.

Messianic Temple including the Mercy Seat. This temple is frequently surmounted by a star, the explanation of which is clear by Bar Kokba's name.[1]

The influence of this type of coins is apparent in Dura Europos (244 A.D.)[2] Fig. 2. The painted panel over the niche for the scrolls is generally described as containing the Ark of the Torah. Thus the picture of the shrine for the Scrolls would be painted above the niche holding the Scrolls and therefore a repetition without a deeper meaning would be given, which seems unlikely. The type of this building is closely related to the representation of the Temple on the Bar Kokba coins, using the same flat ending instead of the gabled roof, the two side columns, the only difference being that the doors are closed.

It is worth noticing that du Mesnil Du Buisson points out that the quality of the painting on this panel is less Hellenistic than that of the other panels in Dura, and that the representations are more in keeping with Jewish traditions.[3] This statement is confirmed by the relation between the Bar Kokba coins and the painting above the niche in Dura. The fact that the doors of the Temple are closed in most of the subsequent representations might be explained by the abandonment of the hope of immediate Messianic fulfilment. The Temple represented is therefore no longer the Messianic shrine in a specified sense, but a symbol of the Temple in a general way. (In special cases, when the story necessitates it, there are however exceptions to this rule.

The explanation of the building referred to above as representing the Temple is confirmed by investigation of the adjacent paintings. On the left the "מְנוֹרָה" the lamp with seven branches is depicted (the English translation "Candlestick" is misleading). This representation is similar to the one on the Ark of Titus, Fig. 3, where the lamp-stand with the seven branches seized from the Temple is shown ; this confirms the closeness to

1. According to Mr. Mattingly it is not impossible that the other symbols surmounting the Temple are thunder and lightning. If this is so the fact would not be incompatible with the Messianic belief.

2. For latest reference on this subject cp. *Gazette des Beaux Arts*, 77, 1935, p. 193 ff. Here also will be found references to the older literature.

3. *Revue Biblique* XLIII, 1934, p. 105 ff, p. 546 ff.

Jewish tradition in this panel, whereas the paintings of the "dedication of the Aaronic priesthood" and the "Feast of Tabernacles" in Dura only give the same general idea without confirming in detail. Figs. 4, 5. This is specially noticeable on the base of the candlestick in the last two mentioned representations. It may be added here that the same is true of the Temple picture in the panels mentioned above, and in the panel representing the Temple with its walls. The gabled buildings are given in the usual Hellenistic style. But even so the representation of the dedication of the priesthood gives the doors open to show the Ark of the Law, represented in accordance with a relief in Capernaum and with the fresco picturing the return of the Ark in Dura.[1] Figs. 6, 7, 8. The form may be derived from Roman coins.

On the right of the Temple picture, painted above the niche, an altar is to be seen as well as Abraham, Isaac and the Ram. The disposition of the figures reveals that the artist was more interested in showing the symbolic meaning of the altar than in describing the scene, the Temple, the lamp-stand with the seven branches and the altar being sacred symbols of Judaism, the sacrifice of Abraham giving the general association of sacrifice as well as the specific idea of salvation without sacrifice. Fig. 1. This representation therefore expresses the meaning of the old sacrificial temple worship in its relation to the new type of synagogue worship without sacrifice which superseded it. This is the reason why these symbols were depicted on the wall of the synagogue containing the niche of the Scrolls and giving the direction of orientation in prayer.[2] Fig. 9.

In Rome the picture of the Temple recurs on gold glasses but is generally represented in the conventional Hellenistic shape with gabled roof. One gold glass now preserved in the Vatican shows not only the building itself, the lamp-stand with the seven branches, the columns "Jachin" and "Boaz," the sacred vessels, but also the "diplostoon," the colonnade built

1. Cp. Mattingly op.cit. pl. 51, 8, 9, while the representation of the Ark in S. Maria Maggiore belongs to a different type.

2. *Cp.* the writer's article in the Journal of the Palestine Oriental Society, XVI, 1.

by Herod.[1] The characteristic design of the Temple can also be found in Palestine, especially in the Theotocos chapel on Mount Nebo and its influence can be traced in the mosaic representing the altar in El-Mehayet.[2] Fig. 9.

The tradition of architectural drawing survived in the Middle Ages ; in the Ashburnham Pentateuch the Torah shrine may be represented, the pictorial tradition being clearly derived from the types underlying the Bar Kokba coins and therefore the Torah shrine and the Temple are symbolically blended together. Whereas the representations of the Temple in illustrated scenes of the same MS do not closely follow this tradition and the same can be said of the mosaics in Santa Maria Maggiore in Rome.[3]

Even in the " liber floridus " of Gand (XII. Cent.) the interior of the Church of St. Omer is depicted in a similar way as in some of the Jewish gold glasses representing the Torah shrine, Figs. 10, 11, the difference being that the altar takes the place of the shrine and the two candlesticks take the place of the lamp-stand with the seven branches ; but a view of the exterior is added to the interior, a typical feature of Romanesque Art not found in Antiquity.[4]

The problem treated here is not only of a special archeological interest. It is customary to contrast the Jewish house of learning with the Christian house of prayer. Surely the element of learning is strong in the ancient synagogue and the sacredness of learning is a Jewish conception, as a Talmud ordinance reveals, allowing a synagogue to be converted into a school but to no

1. This type of " diplostoon " is not identical with the disposition in the synagogues of Alexandria and Tiberias where the synagogues are described as double " stoa " *i.e.* having a principal nave and two aisles on each side. *Cp. Der Morgen* 11, 1935, p. 59 ff.

2. *Revue Biblique*, XLIII, 1934, p. 120 ff, p. 385 ff.

3. *Theologische Blätter*, 13, 1934, col. 289 ff. J. Wilpert : Die römischen Mosaiken, Freiburg 1916, pl. 21, 59, 60 ; *cp.* also pl. 240 from S. Clemente in Rome, showing the interior as well as the exterior of the church.

4. *Cp. Theologische Blätter, op. cit.* Note 16 and note 11 of the present article.

other use. (*b.* Meg. 26*a*, 27*b*).[1] But on the other hand, prayer and charity have formed part of the Jewish worship from the earliest times ; when the Temple was destroyed they even took the place of sacrifices. The terms " ἅγιος " " sancta " and " קדישה " can be applied to synagogues as examples in Stobi, Hammam-Lif and Na'aran show. The synagogue in this respect takes the place of the Temple.[2] This is symbolised for instance in Dura where the Temple is represented over the niche of the Ark in the centre of worship and where the direction of worship is to the west, as it was in the Temple.[3]

The chief aim of this study is to contribute to the solution of one of the main problems concerning the significance of the synagogue ; the relation of the synagogue to the Temple expresses the idea of holiness, In this particular respect the synagogue is also related to the church.

1. S. Krauss : Synagogale Altertümer, Berlin-Wien 1922, p. 304. Krauss stresses the close relation between the Temple and the early synagogue although the examples he uses to prove his theory are not always acceptable. The evidence of the present study collected from an archaeological point of view contributes some support to his statements which are mainly based on theological conceptions and literary traditions. *Cp.* also S. Klein in *Monatsschrift für Geschichte und Wissenschaft des Judentums*, 77, 1933, p. 81 ff.

2. *Cp.* E. L. Sukenik : Ancient Synagogues in Palestine and Greece, p. 80, 73 ; *Revue Archaéologique* 1884, 3 Series III, p. 273 ff, *Revue des Etudes Juives*, XIII, 1886, p. 45 ff, p. 217 ff. *Cp.* Midrash Haserath viytherath, Ed. A. Marmorstein, London 1917, p. 9 f.

3. *Cp.* Note 7.

FIG. 1. JEWISH TEMPLE (*after Hollis*).
BAR KOKBA COINS (*after Mattingly*)

FIG. 2. NICHE IN DURA. (*after Clark Hopkins*)

FIG. 4. DEDICATION OF THE AARONIC PRIESTHOOD (*after Clark Hopkins*)

FIG. 5. A DETAIL OF THE DEDICATION

FIG. 6. ARK OF THE LAW—CAPERNAUM

FIG. 7. THE RETURN OF THE ARK (*after Clark Hopkins*)

FIG. 8. ROMAN COINS (*after Mattingly*)

FIG. 9. TEMPLE MOSAIC ON MOUNT NEBO

FIG. 10. JEWISH GOLD GLASS, BERLIN

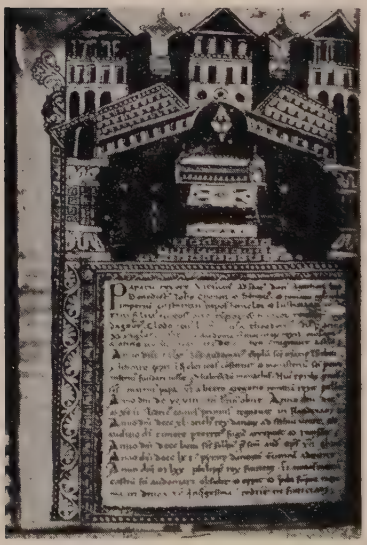


FIG. 11. LIBER FLORIDUS, FROM ST. OMER

Reviews and Notices of Publications

Among the various books which have appeared recently relating to Biblical subjects there is one which will be of special interest to the readers of the Quarterly Statement. This is Professor S. A. Cook's *The Old Testament : A Reinterpretation*, just published by the S.P.C.K. A fuller review will appear later, and the object of this brief notice is merely to draw the attention of students of the Old Testament to a book which is full of stimulating suggestions and striking points of view.

A valuable discussion of the etymology of the names Shaddai and Abram by Professor W. F. Albright appears in the Journal of Biblical Literature, LIV, 4. It is to be hoped that the antiquated derivations of Shaddai have at last been laid to rest.

The attention of those interested in Palestinian archæology may be called to the admirable monograph by Dr. J. Simons, entitled *Opgravingen in Palestina*. It is in Dutch, a language less familiar to students than German, but the extraordinary excellence of the illustrations is alone enough to recommend the book. We are in sore need of such a book in English.

The Babylonian Talmud. Translated into English with notes, glossary and indices, under the editorship of Rabbi Dr. I. Epstein. London, the Soncino Press, 1935.

The appearance of this monumental edition of an English translation of the vast pyramid of Jewish learning and devotion known as the Talmud is an event of great significance to all students of Biblical matters. It is of no less importance to students of anthropology, folklore, sociology, the history of jurisprudence, and many other branches of human studies. It is a pleasure to be able to congratulate the distinguished editor on the admirable way in which the first part of his huge task has been brought to completion. The Soncino Press is also to be congratulated on the excellence of the production and printing of the first eight volumes.

Hitherto English students who have wished to explore the mysteries of the Talmud have been obliged to content themselves with the imperfect aid of Rodkinson's translation. Those

students who could read German were more fortunate in the availability of Goldschmidt's edition. But we have here at last an authoritative translation made by scholars of repute, under the guidance of a distinguished Rabbinical scholar.

Any student who has ever wrestled with the intricacies of the Talmud in the language in which it was compiled must be conscious that only scholars who have been cradled in Jewish tradition and who have, as it were, absorbed the spirit of this literature with their mother's milk, can interpret it to the outside world. It was to some purpose that the founders of the Talmudic tradition "put a fence round the Torah," and even the most sympathetic outsider cannot but feel like a mariner in uncharted seas when he first ventures upon the "ocean of the Talmud."

Hence, it is with feelings of profound gratitude that this edition will be welcomed by students of the history of religion who still regard with reverence the part played by the Jewish people and their national literature in the development of the world's culture.

The English translation contained in this edition is based on the text of the Wilna Talmud, corrected where necessary in the light of variants from MSS. and other printed editions. All the censored passages reappear in the Text or in the Notes. The Notes bring the essence of the classical interpretations, clarify the argument, explain technical expressions, and show in what sense the Biblical verses quoted are to be understood. Wherever possible, place-names are identified, historical and archæological allusions elucidated, and their parallels in the life of contemporary nations traced.

Following the excellent example of the Goldschmidt edition, the Mishnah and the words of the Mishnah recurring and commented upon in the Gemara are printed in capitals. The various introductory formulæ are carefully distinguished and consistently rendered, a matter of considerable importance to the English student.

The involved and elliptical style in which the Rabbinical arguments were couched does not lend itself to clear and current

prose, but on the whole, with the help of bracketed words and phrases, the sense is plainly indicated, and in spite of the fact that many hands have collaborated in the work of translation there is a surprising uniformity of excellence in the rendering.

Each volume is provided with a useful glossary of technical terms and obscure words, an index of scriptural references, and a general subject index, the latter not always as full as might be desired. The Editor has furnished valuable footnotes throughout the whole of the eight volumes of *Nezikin*.

Where so much help has been given it seems ungracious to wish for more, but it would have been of immense service to the lay reader (and it is to be hoped that this great edition of the Talmud will find many such), to have a short introduction to the methods of Rabbinical reasoning. So far as the writer knows, Mielziner's *Introduction to the Talmud*, a book which is not easy to obtain, is the only place where the English student can find such information. The Foreword, written by the Chief Rabbi, Dr. Hertz, is an admirable resumé of the history and character of the Talmud.

It would, obviously, be impossible, in a short review, to deal with the many questions of scholarship which arise from such a work as this, and these will be dealt with in specialist journals. It must suffice here to say that this, the first authoritative translation into English of the Talmud, is in every way worthy of the reputation of its Editor, its translators, and of the Soncino Press. We may await the completion of the work with the assurance that the remaining volumes will not fall below the high standard which has been set by the first eight.

Die Entstehung des Judenthums. By KURT MOHLENBRINK. Hanseatische Verlagsanstalt, Hamburg. 66pp. RM. I. 80.

In this little book of sixty-six pages a well-known German scholar has given a brief but masterly sketch of the origins and development of Hebrew religion and culture, from the early common Semitic background up to the emergence of Judaism. It is however, vitiated by the unfortunate tendency which is at present at work in Germany to find in the history and development of Judaism a justification for the treatment

to which they are being subjected in that country. The author's thesis is that Christianity represents the development of the more valuable elements in the religion of the Hebrew prophets, while Judaism is a one-sided and distorted development.

He claims that the pervading Deuteronomic idea of "rest," *menuchah*, destroyed the earlier warrior (kämpferisch) religion of Israel, and replaced it by a civic (bürgerlich) type of religion, which constitutes a danger to the free spirit of any nation which gives it a home. This is so clearly a piece of sophistical special pleading that one can only regret that so fine a scholar as Mohlenbrink should be found lending himself to such unworthy ends, however sincerely.

Material Remains of the Megiddo Cult. By H. G. May and R. M. Engberg. Vol. XXVI of the Oriental Institute Publications of the University of Chicago. Published in the U.S.A. by the University of Chicago Press, and in Great Britain and Ireland by the Cambridge University Press. 27*s*. net. 51 pp. XLI plates.

The names of the collaborators in this valuable monograph are already familiar to the readers of the Quarterly Statement, and they have put all students of archæology and the history of religion under a great obligation by the publication of this careful collation of cult-material from the Megiddo site which is being so thoroughly and scientifically excavated under the auspices of the Oriental Institute of the University of Chicago.

It is by work such as this that we shall ultimately be able to formulate a clear account of the early period of religious development in Canaan, and of its relation to the growth of Hebrew religion. We welcome the protest in the Introduction against the "tendency to decry the interpretation of archæological finds in terms of religion or the cult." From every fresh site evidence accumulates to prove the extent to which religion dominated every aspect of life in the Ancient East.

The full value of the material here discussed will no doubt become more apparent when the excavation of the Tell is completed, revealing more clearly the stages of development through which the culture of Megiddo passed. The publication of the pottery context will help to establish the dating of the material.

But, in the meanwhile, this preliminary study of selected groups of cult-objects and remains throws much valuable light on the nature of early Canaanite religion in general, and on certain aspects of it in particular.

The text, which provides a commentary on the very fine series of plates, deals with the "sacred area" on the eastern side of the Tell, and the pottery shrines, altars, pillars, together with the five extremely interesting "proto-Ionic capitals" found in the debris of this area. The last-mentioned objects receive a special discussion in the last chapter by Mr. Engberg, in relation to tree-designs on pottery. This chapter is perhaps the most illuminating in the book, and deserves careful study. One interesting parallel to the number of comparative examples collected by Mr. Engberg may be cited. It is the Phœnician bronze stand from Curium in Cyprus, discussed by Mr. Barnett in *Iraq* II. 2, p. 209.

There is also an excellent chapter on Figurines. The Chicago Oriental Institute has in this publication added to the debt under which it has already placed students of archæology by its previous volumes.

The Story of the Bible. By Sir Frederick Kenyon. John Murray. 3*s.* 6*d.* net. 159 pp.

This little book could only have been written by one who was a master of his subject. It is a model of lucidity and conciseness. During the quarter of a century or more, since Sir Frederick Kenyon published his authoritative introduction to the history of the New Testament text, we have seen the greater part of what he justly calls "the Age of Discoveries," (p. 89), and this book gives, for the plain reader, an admirable account of all the discoveries of prime importance for the Bible text which have been made during that period. Readers will be specially grateful for the full account of the Chester Beatty Papyri which have aroused so much interest recently.

No better account has yet been written of the way in which the Bible reached the form in which we have it today.

S. H. H.

Explorations in Eastern Palestine. II. By Nelson Glueck. In *Annual of the American Schools of Oriental Research*, Vol. XV, 1935.

In an earlier volume in this series Dr. Glueck reported the results of an expedition to Transjordan which he made in 1933 under the joint auspices of the Transjordan Government and the American School in Jerusalem. That volume dealt chiefly with Moab. The new volume contains the record of a second joint expedition made in 1934 in concert again with the Transjordan Government, but with the help of other American institutions; it is concerned mainly with the land of Edom.

In the course of these journeys Glueck has examined an enormous number of ancient sites—towns, villages, forts, mining centres—261 being shown on the map attached to the present report in the area south of the Dead Sea. Many of these had not been visited by previous travellers. The work, of course, was confined to a surface survey but it was carried out with extreme care and thoroughness, and Glueck's knowledge of Palestinian pottery has enabled him to arrive at a series of conclusions which amount in fact to a first outline of the history of the two countries. The potsherds, which form the most important new source of this history, fall for the most part into groups which can be confidently distinguished and dated within broad limits with certainty, and the evidence thus obtained is skilfully combined with the very fragmentary material from literary records to make an intelligible story. The result is a fine piece of pioneering work which reflects all credit on the author.

It has been known for a long time that there are rich mineral deposits in the Arabah: it is Glueck's merit to have shown from his study of the potsherds at what periods these deposits were actively exploited and at what periods, largely in consequence of this exploitation, the neighbouring regions were most thickly populated. The first important period reaches from the third phase of the Early Bronze to the first of the Middle Bronze, and remains of this period were found on nineteen sites in Edom and Moab. Then there is a blank in both

countries lasting about 500 years from the eighteenth century to the thirteenth. From the thirteenth century to the eighth is another period of great activity, and remains of this date were found on more than eighty sites. This period is the period of the Hebrew Monarchy, and these discoveries throw new light on the campaigns of several of the kings in East Palestine as well as on one of the chief sources of their wealth. In the earlier period Glueck finds little difference between the pottery of east and west Palestine ; in this later period there are differences and " the civilisation of Esau was certainly not inferior to that of Jacob " (p. 139). This period of activity ceases in the eighth century : it was killed by the advance of Assyria, and the country did not revive until after both Assyrians and Babylonians had passed away. It is then, probably in the sixth century, that the Nabataeans enter the scene which they occupied until the time of Trajan. This third period was the most brilliant of all, and the fine Nabataean pottery is extremely attractive ; in the coarser ware Glueck finds various characteristics which he holds to be survivals of Edomite practice. On this period, however, and on the Roman, Byzantine and Early Arab, periods, in all of which the country continued to be occupied by a sedentary population, an exploration which is confined to the surface cannot throw much new light.

J. W. Crowfoot.

The Ruins of Jericho

To the Editor, P. E. F. Quarterly Statement.

Sir,—The conclusion of six seasons' researches among the ruins of Jericho seems to call for a definite pronouncement about the date of the Bronze Age city's fall, if only to put an end to needless controversy. A review of the evidence leaves no reasonable doubt upon this question.

Results obtained successively in city and necropolis have all pointed steadily towards a date about 1400 B.C., during the reign of the Pharaoh Amenophis III, whose scarabs mark the end of a long series of official and private seals. At the same time the tomb deposits, which represent the continuous burial practice of chiefs and people for more than 800 years, come abruptly to an end; while within the city the signs of a general catastrophe accompanied by the falling of its massive walls are found wherever the Late Bronze Age levels are preserved.

The sparse deposits of the next five centuries, amounting to ½ per cent. of the whole, represent a partial and discontinuous occupation of portions of the site by later settlers. About the age of Solomon a strong block-house occupied the old palace site, but the city walls show no signs of restoration until the general reoccupation of the area in the second Iron Age, known to have been effected in the time of Ahab.

This season, in response to Sir Charles Marston's desire, we have made a final search in the vicinity of the ancient palace and located a small undisturbed area immediately below the Iron Age débris. As elsewhere at this level, its buildings were found to have been completely burned out, but among the ashes were found some distinctive deposits, including painted pottery. Cypriote importations, lamps, and cooking pots. The whole group is characteristic of the early part of the Late Bronze Age, while the painted wares in particular find ready parallel in the Tuthmosis III. and pre-Amenophis III. levels at Beisan. On the other hand, the peculiar art products of the Tell-el-Amarna period were entirely wanting, as also were Mycenaean wares.

Allowing for the possibility that the finding of two scarab-seals of Amenophis III. in a royal tomb suggests the appointment of two local dynasts within that reign, with a third still in office, we may logically conclude that the fall of Jericho took place between 1400 B.C. and the accession of Akhenaton. No other conclusion will satisfy the archæological evidence as a whole.

It will be realised that this result is independent of any literary indications, and it is not affected by computation or theory as to the date of the Exodus.

Alan Rowe (*Ex-Director, Beisan Expedition*).
Acre. John Garstang (*Ex-Director, Jericho Expedition*).

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

The decisive action taken by His Majesty's Government in sending an Army division to Palestine offers some hope that order may at last be restored to that distressed country. Friends and supporters of the work of the Palestine Exploration Fund must desire that any settlement should be a just one, and that the causes of the deplorable violence and bloodshed of recent months may be speedily removed. In its long history, Palestine, where prophets dreamed of universal peace, and the first message of peace on earth among men of goodwill was proclaimed, has known little else but strife. But still the hope persists in spite of perpetual disappointment. The peaceful and disinterested work of exploration and the discovery of the truth about the ancient inhabitants of Palestine cannot flourish among the alarms of faction and bloodshed.

By the death on July 25 of Sir Henry Wellcome the cause of scientific and archæological research lost a strong friend and a generous benefactor. Sir Henry was born of English stock in Wisconsin 82 years ago and at an early age chose chemistry and pharmacy as his career. Thanks to his acumen it yielded the immense fortune which enabled him to promote research in many departments of human knowledge. One of his earliest enterprises in this field was the founding of the Wellcome Tropical Research Laboratory in Khartoum, an institution which proved that tropical disease could be conquered. Wellcome was one of the first civilians to enter Khartoum after its capture by General Gordon, and to the end of his days he was deeply interested in archæological work which he there began. His munificent encouragement of medical studies is well-known. It was only in the last years of his life that he entered the field

of Palestinian archæology and took part with Sir Charles Marston and later with Sir Robert Mond in the excavation of Tell Duweir which Mr. J. L. Starkey, the director of the Expedition, has identified with the ancient city of Lachish. The discovery two years ago of the Lachish Letters on that site was one of the most notable which has rewarded the Palestinian excavator. Sir Henry was knighted in 1932 and in the same year was elected a Fellow of the Royal Society.

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With regard to the lamented death of that distinguished Arabic scholar Dr. Billig, Mr. Crowfoot writes :

" The lamentable murder of Dr. Billig has inflicted a grievous blow on Islamic studies in the Hebrew University, but it is a blow which will be felt by many who have no connection with that institution, because his time and his scholarship were always at the disposal of anyone who asked for them. An Israelite indeed without guile, his friends have rightly laid stress on the sweetness of his disposition and his singularly lovable character. He was very deaf besides being extremely shortsighted, and his face habitually wore the winning smile which one sees upon the faces of the deaf who have found strength in their infirmities. The pleasure of communicating knowledge to others seemed to be all that he asked for : it was the sole reward for which he looked, even when this communication took the form of giving individual tuition for a matter of two terms to a young student of the British School. It is a rare privilege to have known such a man."

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We are glad to be able to state that the inclusion of the name of the Rev. Prof. Adam C. Welch on page 122 of the July QUARTERLY STATEMENT was made in error, and was due to a false report received during his recent serious illness.

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The Annual Exhibition of Recent Work of the Egypt Exploration Society was held in the rooms of the P.E.F. from September 14 to October 3. The Exhibition comprised objects with descriptive photographs and diagrams from the excavations

at the Palace of Akhenaten at Tell el Amarna ; photographs of architectural and other discoveries in the temples and towns of Armant. Of further interest was the Exhibition of Cat Figures illustrating the cult of the cat and cat goddess in ancient Egypt, a unique collection lent by Mr. and Mrs. N. Langton.

The annual meeting of subscribers of the British School of Archæology in Jerusalem will be held on Tuesday, November 24, at the rooms of the Society of Antiquaries. The Rt. Hon. W. G. Ormsby-Gore, M.P., will preside. Notices of the meeting will be sent to subscribers in due course.

It is appropriate here to record the plea made by Mr. J. H. Iliffe, the Director of the National Museum at Jerusalem, for the preservation of the traditional crafts of Palestine. In a paper read to the Museums Association Conference at Leeds in July last, Mr. Iliffe said : " The exquisite embroidery of Palestine is becoming a lost art, practised every year by fewer women. Beautiful pottery and water-jars are replaced by the ubiquitous petrol tin, and the charcoal brazier has given way to the paraffin stove. Action must be taken at once to preserve for future generations, some part of the artistic heritage of the past. By searching in the remoter villages, and among the older and more conservative inhabitants, a fine and representative collection can still be made. But in a few years the opportunity will have passed for ever."

Readers will remember Mrs. Crowfoot's articles on the native crafts of Palestine, published in this journal, and attention may be drawn to the article appearing in the present issue by Mr. Larsson on the mat-weaving technique of Lake Huleh.

M. Parrot's second campaign at Tel Hariri has proved conclusively that the site is that of the ancient " royal city " of Mari, a city which enjoyed a brilliant period of civilization in the early history of Sumer and Akkad, and gave its name to the tenth post-diluvian dynasty, until its final destruction by Hammurabi. M. Parrot has unearthed the palace and the temple

of Ishtar, the king's throne-room and the royal chapel, with a wonderful system of baths. Schoolrooms with the scholars' benches of brick are still standing, and heaps of sherds and shells show the material on which they wrote. In another room were found 1,600 clay tablets in jars and some 900 more in various places, but particularly in the schoolroom. The dicipherment of the tablets will be awaited with interest.

A perfectly-preserved cave-tomb which was used by a noble Jewish family during the second and fourth centuries A.D., has been uncovered in the north-western part of the Plain of Esdraelon, near the Jewish settlement of Sheikh Abraik. The walls were decorated with carvings and pigment illustrations of seven-branched candelabra and other Jewish symbols, and a large number of sarcophagi were discovered in the cave. It is hoped that the discovery of a cave-tomb in this district during the early period of Christianity will shed light upon the Jewish life of the time, especially as the cave is thought to be the mausoleum of a leading clan of Israel.

For those who are interested in the history of writing, the appearance of Dr. Falkenstein's *Archäische Texte aus Uruk* is an important event. It also closely coincides with the publication of Father Burrows' edition of the *Archaic Texts from Ur*. It now begins to be possible to sift out facts from fancies and to obtain a clear view of the early stages of the development of writing in Mesopotamia from the pictorial form of script characteristic of the lowest excavational levels at Uruk, Jemdet Nasr and Ur, up to the elegant script of Assyrian scribes of the time of Sennacherib. The pictorial representations of animals, plants and objects, of which the signs consist, throw much light upon the cultural conditions of the Sumerians about the middle of the fourth millennium B.C. We learn that barley, wheat, and the vine were cultivated, that the four-wheeled wagon was already in use side by side with the more ancient sledge. It is particularly interesting to learn that the earliest documents of Babylonia were not historical but business documents, and that it was the

impulse to record historical events that set in movement the process by which the enormous variety of signs and the arbitrary arrangement of them was replaced by the orderly system of the later scribes.

It is a pleasure to note that Miss D. A. Garrod, whose distinguished work in Palestinian archæology and anthropology is well known to readers of this journal, is the President of the Anthropological section of the British Association for this year. Her first-hand knowledge of conditions in Palestine gives special value to the words of her letter to *The Times* of 26th August. They are worth quoting here :

" I am convinced that but for the interference of the Arab politicians of the towns, whose last concern is the welfare of the peasant, Arab and Jew could live peaceably together in the countryside, and that the fellahin, who are passionately interested in machines, would gradually learn from their Jewish neighbours the improved methods of farming which, as Sir Flinders Petrie has pointed out, would solve the land problem in Palestine.

In discussing these matters with people in this country I am constantly meeting a state of complete ignorance about the facts of Jewish immigration, combined with very definite opinions on the subject. I am not competent to deal with figures relating to population, &c., or with the political background of the Balfour Declaration ; in any case these have been exhaustively discussed in your columns. I should, however, like to express my deep respect for the courage and tenacity of the Jewish pioneers and for their forbearance under provocation. These people are not, as is too often stated, " the scum of Eastern Europe," but an *élite*—a carefully picked band of young men and women, many of whom have given up learned or professional careers to live under the gruelling conditions of an agricultural colony in Palestine. Even those who do not sympathize with Zionism would do well to recognize this and to refrain from mis-statements which amount to calumny."

The centenary of the birth of Sir Walter Besant reminds us

that among his many interests the famous Victorian novelist included Palestinian exploration. He was for some years the secretary of the Palestine Exploration Fund.

Dr. E. F. Schmidt, field-director of the Oriental Institute of Chicago's expedition to Persepolis, has made new and striking discoveries in his latest campaign. These consist of a new set of magnificent reliefs representing Darius the Great, attended by his son, Xerxes, giving audience to a petitioner. The sculptures may be reckoned among the finest examples of ancient Persian art yet discovered. Many other important finds were also made.

Covenanted Subscriptions.—A further appeal is made to those subscribers who have not already done so to sign the form which accompanies this issue. It enables the Fund to claim repayment of Income Tax, and involves the subscriber in no expense.

The Committee have to acknowledge with thanks the following :

The Antiquaries Journal, XVI, 3.

The Expository Times, July–September, 1936. The Bearing of Archæology on Old Testament Criticism, by J. W. Jack (July). Problems of the Pentateuch, by Canon J. Battersby Harford (August). Recent Biblical Archæology, by J. W. Jack.

Religions, July, 1936.

The Journal of the Royal Society of Antiquaries of Ireland, LXVI, 1.

The Scottish Geographical Magazine, 52, 4.

Annals of Archæology and Anthropology of the University of Liverpool, May, 1936. The Drill Style on Ancient Gems, by C. R. Wason.

The Journal of Egyptian Archæology, XXI, 2. Preliminary Report of the Excavations at Tell el-Amarnah, by J. D. S. Pendlebury.

The Journal of the Royal Anthropological Institute, LXV. The Anthropology of the Rwala Bedouins, by W. M. Shanklin.

The American Journal of Semitic Languages and Literatures, LII, 4. The Ark—A Miniature Temple, by H. G. May.

The Journal of the American Oriental Society, 56, 2. Breasted Memorial Number. How well can we know the Ancient Near East ? By W. F. Albright. Ras Shamra Notes V, by J. A. Montgomery.

Bulletin of the Metropolitan Museum of New York, July–August, 1936.

The Geographical Review, July, 1936.

The Jewish Quarterly Review, July, 1936.

Bulletin de Correspondence Hellénique, LIX, 1935, II. L'Histoire d'une Bête, by A. Roes.

Journal Asiatique, CCXXVII, 2. Une Grotte Forteresse des Croisés au delà du Jourdain, by P. Deschamps.

Nouvelle Revue Théologique, July-August, 1936.

Revue Biblique, July, 1936. Autour du Groupe Monumental d'Amwas, by R. P. L. H. Vincent.

Syria, XVII, 2. Les Fouilles de Ras Shamra-Ugarit. Septiême Campagne, by C. E. A. Schæffer. 'Anat et la Génisse. Poême de Ras Shamra (IV AB), by C. Virolleaud.

Archiv für Orientforschung, XI, 1–2. Mesopotamian Fauna in the Light of the Monuments, by E. D. Van Buren.

Orientalistische Literaturzeitung, July–August–September, 1936. Notes on Ras Shamra Texts, by T. H. Gaster. Reviews of : Dalman, Arbeit und Sitte in Palästina, by K. Galling ; Driver and Miles, The Assyrian Laws, by M. San Nicolo ; Graham, The Prophets and Israel's Culture, by L. Köhler ; Jack, The Ras Shamra Tablets, by A. Jirku.

Zeitschrift des Deutschen Palästina-Vereins, 53, 1-3. Ein Etagen-Pilaster-Grab im Norden von Jerusalem, by K. Galling.

Biblica, 17, 3.

Archiv Orientalni, VIII, 1. Une Stèle " Hittite " Hiéroglyphique de Kaiserì, by B. Hrozny. Notes on the Byzantine Incursions into Syria and Palestine, by J. Starr.

Al Mashriq, April–June, 1936.

Excavations at Tell el Duweir, 1935·6

Wellcome Archaeological Research Expedition to the Near East

(*Lecture given at the Wellcome Research Institute, July* 3, 1936)

By J. L. Starkey

The season at Tell Duweir started under ideal conditions in the first week of November, early rains bore promise of fruitful crops for our Arab partners, and never had we received a more generous welcome.

I had again the co-operation of Mr. Lankester Harding, Miss Olga Tufnell, Mr. Charles Inge, and Mr. H. W. Pummell. New members this season were Mr. Holbrook Bonney and Mr. Alkin Lewis. Miss McNair Scott, a student of the Department of Egyptology, under Professor Glanville, joined us for the season, and Mr. G. B. Gardner of Jahore, gave us his assistance for some six weeks. Mr. Richmond-Brown has again placed his expert knowledge as photographer at our disposal, and the excellent photographs are all his work.

Our first task was to complete the clearance of the saddle area, which had produced the tomb of the early Judaean kingdom, containing the iron flesh-hook or trident, where we had every reason to expect the excavations to run deep. It was therefore desirable to finish the work before the winter rains set in. Immediately north of the camp-house a large chalk quarry was located. The harder rock roof had partly collapsed anciently, and the remainder had been quarried away when the whole area was worked over for building material in the early years of the Judaean kingdom. This huge subterranean excavation had been worked by means of a series of rectangular bays radiating from a central supporting pillar. The careful and systematic method of cutting conveys the impression of work to a definite plan.

The pottery found in the mud deposits on the floor suggests that we must attribute this work to the early phase of the Middle Bronze Age, before the period of Hyksos domination.

Like last season, all the tombs had been partly or wholly destroyed by later quarrying, but some few scattered objects rewarded us. In a circular chamber, probably early fourteenth century B.C., we found three bronze vessels, one large bowl, a smaller one and a cup or dipper, all badly crushed. In the same region a smaller tomb produced an alabaster palette, a bronze mirror and kohlstick (the former is the first we have found at Tell Duweir) probably the property of one of the rich ladies of the city.

Now that the saddle area is completely cleared, it can be used as the main dumping ground for the work within the gateway region of the Tell.

Much has also been done on the roadway that leads to the city gate. We have cleared below the level of the retaining wall of the ramp, built after the great destruction wrought by the fires of the 588 B.C. attack. To our surprise, we have found the foundations of two earlier retaining walls of much heavier construction. The middle wall was badly calcined by fire, and must represent rebuilding in the latter half of the Judaean kingdom ; the earlier and lower wall, built to a sharp batter, probably belongs to the original plan of the Rehoboam defences. At what date this wall was destroyed, necessitating the building of the middle wall, we do not know, but an explanation will no doubt be forthcoming when we reach the earlier phases of Judaean history, to be unfolded as we reach lower levels in the city.

Many thousand tons of fallen masonry have been cleared from above the road, and we have exposed a long section of the upper flanking defence wall, with its heavy buttressing, as it turns the south-west corner of the mound. The deep deposit of charcoal and ash which covers this cobbled roadway has not yet been touched, but we know it must contain quantities of missiles belonging to attackers and defenders in the last siege. Owing to the excellent drainage here, we shall leave the completion of this job till the next rainy season.

A second gang of workers began in the western valley about the same time, as from previous experience here we were well

aware of the risks of deep flooding. We continued from where we left off two years ago, before the Palestine Government had completed the expropriation of land. At once a small circular tomb was struck, carefully lined with plaster, and comparatively little disturbed. Vast quantities of pottery vessels were found, including many new forms, which range from 1400 to 1300 B.C., although a few pieces suggest that the tomb may come down as late as 1275 B.C.

One of the most interesting vessels of this latest phase is a censer (Plate II, Fig. 2) of the same quality paste and finish as the Duweir Ewer. It has an inturned rim, with two horizontal lugs, pierced vertically, on to which a flat cover fits, its upper surface is decorated with incised tree or plant motifs, enclosed by a circle which, with hatched lines, forms a surrounding border. An interesting feature on the underside of this cover (Fig. 1) is

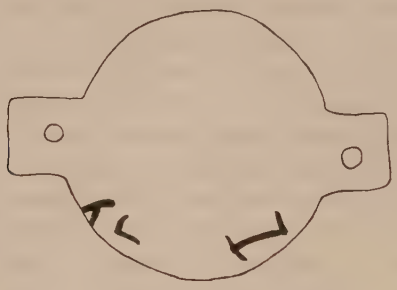


Fig. 1. Underside of censer cover

further witness to the use of the early alphabetic script at Lachish, which is already familiar from the "Duweir Ewer" and "bowl" inscriptions. (*See* P.E.F. QUARTERLY STATEMENT, Oct. 1933, Pl. IX, and Oct. 1935, Pl. XVI.) The characters are written in red ochre, and the traces of at least three letters can be seen, the one to the extreme left being probably a second example of the "gimel." To the right is a sign that also occurs on the Bethshemesh ostracon, and may be a primitive "zain," but I have no doubt that a more profound suggestion will be given by the epigraphic experts.

The group included a fine bronze dagger with a long tang, and four knives, similar to types found in Egypt dated to the middle of the eighteenth dynasty, a pair of lance heads, and a large collection of sporting arrow heads of varying weights. Among the miscellaneous objects was a long ivory rod with pomegranate finial, which we now think may probably be a hair curler. A set of draughtsmen in faience consists of five "halma" men and five flatter pieces and with them were a corresponding number of square bone inlays from the wooden gaming board. The scarabs include some with the names of Thothmes III and Amenhetep III, but by their style the former are probably late issues of the nineteenth dynasty. A small gold daisy pendant makes contact with a similar one from the middle level of our valley temple.

We have seldom found such a fine concentration of objects in so small an area, there were about 200 pots, of which fifty-three were types new to us at Duweir. Quite close to this tomb was another much larger chamber of about the same period. Its presence was already known to us from our first season's work, but at that time it was not advisable to intrude so far into the cultivation of the valley. We cleared down into the upper levels through the broken roof, containing an upper deposit of animal bones, which appear to be mostly pig. A similar deposit was found in the adjoining tomb cleared in 1934. All this refuse should be ascribed to the latter half of the Judaean kingdom, in view of the deposit which filled the chamber below. It is tempting to suggest that these pigs were thrown in during the Assyrian occupation, as we know from the royal correspondence from Nineveh that Lachish was put under a military governor.

The lower or main deposit filling the chamber consisted of a conglomerate mass of bones representing the remains of at least fifteen hundred human beings, which had been obviously thrown in through the roof, so that the skulls rolled down from the apex of the conical mass to the sides of the chamber. The original entrance was found to the west with the doorway still blocked.

It seems probable that this ossuary was directly connected

with the salvage of the city after the destruction by Sennacherib, King of Assyria, about 701 B.C. The fact that some bones were partially calcined suggests that they had been abstracted from the burnt town. This evidence was emphasized in the adjoining tomb deposit cleared in 1934. Strewn throughout the deposit were sherds of domestic pottery, many were burnished vessels, and most of the smaller specimens were perfect and may be offerings made by surviving relatives.

When floor level was reached, it became clear that the tomb had been previously used as a dwelling, when a door had been cut through connecting the smaller tomb with it, where at least 500 bodies had been similarly deposited. The style of both chambers makes it certain that they were excavated originally to contain early fifteenth century burials.

From a preliminary examination of the skulls, we see interesting examples of head injuries received in battle, besides several pathological abnormalities. Some show evidence of extreme distortion, which must have been commenced at birth, reminding us of the abnormal heads shown in the royal portraiture of the Tell el Amarna period. Three well-preserved male skulls present a problem to historical surgery, as trephination has been performed (Plate III, Figs. 1, 2). The circular hole produced by scraping is the more usual method in the ancient world, while the alternative system of cutting a rectangular aperture is known only from America, where a number of Inca skulls show our technique, crudely executed. So crude is the execution of this operation that experts consider that death almost immediately ensued. Here I refer particularly to the studies of Dr. T. Wilson Parry, who is our greatest authority on the history of trephination. (See *Man*, Oct. 1936.)

This series of 700 crania has given us an unprecedented opportunity to learn something definite about the physical characteristics of the inhabitants of the western border of Judah ; as Lachish is such an ancient centre, there were no doubt many survivors of the original Canaanite stock in the city. The Lachish reliefs, now in the British Museum, are of interest in this connec-

tion, where a contemporary artist shows the features of the inhabitants in great detail. The head measurements of our neighbouring villagers are now needed to round off a comparative enquiry.

Before the beginning of the rains we finished sifting the soil which had filled the sanctuary of the Middle Temple. We were well rewarded for this minute scrutiny ; besides many small beads and scarabs (one bearing the name of Queen Tyi, wife of Amenhetep III) were two objects which may be directly connected with the early cults at Lachish. The first is a hæmatite cylinder seal (Plate IV, Fig. 1) ; its main subject is a group of human figures. To the left is a deity enthroned, holding a sceptre in his left hand, the top of which is damaged. Before him is the symbol of the moon crescent and the sun, and below is a rampant animal of the cervidæ family. In front of the god stands a priest or minor deity, who wears a similar headdress to the seated god, though the latter may have in addition a small streamer hanging from his cap. Both these are bearded. Finally we see the devotee introduced into the presence, wearing a long flounced gown. Between them are two symbols : the upper one is the familiar Egyptian " ankh " or life sign, and below is a tree ; though authorities who have seen this seal consider that these are but intrusive fillings, I should like to suggest with diffidence that they may signify the tree of life, and we should bear in mind that the sacred tree is frequently shown with goats rampant either side of it. This combination is repeated twice on the " Duweir Ewer," found in the latter Temple. The pair of winged sphinxes, the guilloche, lion and ibex emphasize the connection between this cylinder and the art of northern Syria.

The second object is a small gold pendant embossed and chased with the features of a bearded man (Pl. IV, Fig. 2), surrounded by a circle of dots. This reminds us of the anthropomorphic vase found by Professor Garstang at Jericho, and may represent one of the male deities to whom the temple was dedicated.

When the waterlogged temple area dried up this spring, we removed the floor levels of the Middle Temple exposed last year. Directly under the altar bench we came upon a large deposit of pottery (Pl. V, Fig. 1), including a bread platter, the first of this type found whole. With it were fragments of a late Helladic II goblet (Pl. II, Fig. 1) of fine yellow paste, decorated with black bands and the double stemmed ivy leaf pattern in black, changing to red, so characteristic of the mainland wares between 1500 and 1400 B.C. This is the first complete form found in Palestine, and the specimen is all the more valuable because it comes from a sealed deposit, linking up with a large number of Palestinian forms, now closely dated. After this deposit was removed, we came down upon the earlier mud altar bench, with its three projections (Pl. V, Fig. 2). In front of it was a large four-handled jar set in the floor. This earlier sanctuary is much smaller than its two successors. Two roofing supports only were needed, and their stone bases were in position on the axis of the chamber.

The presence of a small chamber to the west, which may be the earlier vestry, is a new feature. From the pottery in this level I suggest a date between 1480 and 1420 B.C., allowing a period of sixty years for the occupation of this earliest temple.

When we compare the plans of the three periods, upper, middle and lowest, we are struck with the continuity of the general lay-out. The greatest change takes place with the Middle Temple, where we notice a general expansion and the appearance of the offering benches arranged round the sanctuary, a feature which is repeated in the final re-building.

There is certainly no evidence to postulate any historical break between the Lower and Middle Temples, although the depth of deposit between the floors of the Middle and Upper Temples may represent a time-factor which should be allowed for, and ten years may suffice.

It is well to point out that there is no evidence of a violent destruction in either of these temples, but the ashes and burnt masonry of the Upper Temple bear graphic witness to a sudden end.

Supplementing the continuity exhibited in the plan, certain facts connected with the objects may bear directly on the cult. The inscription on the "Duweir Ewer," belonging to the last phase of the Upper Temple, refers in the opinion of some authorities to a triple offering to the deities, Shor, Mot and Elat, and here we are reminded of the three small platforms before the altar bench in our earliest sanctuary.

A bronze statuette of Reshef (Pl. IV, Fig. 3) the Syrian war god, was found this year at the level of the early sanctuary floor. His right arm is raised to wield a spear or "khepesh" scimitar, and he wears the characteristic conical cap and kilt. Once more we have connections with the upper building, for amongst the mass of objects found on the raised shrine was a rough pottery figurine of a man wearing a tall conical cap. (P.E.F. QUARTERLY STATEMENT, Oct. 1934, Pl. VII., Fig 1.)

We are also reminded of the "Lachish bowl" inscription, where the word "sheloshet" occurs, which may imply a three-fold libation. Although this bowl was not found in the temple, it indicates that a triad may be recognized among the cults of Lachish. Certainly a female deity must be sought for, as the incised outline of a small gold pendant found in the Middle Temple shows. Many problems still remain, but some may be answered when we complete the clearance of temple refuse, which still lies temptingly under the western slope of the city above.

Therefore we have good evidence pointing to the worship of a triad, and our temple appears to have been built for the service of an extraneous cult with northern affinities. Surely we must expect the sanctuaries of the orthodox deities to be on the acropolis within the fortifications.

Within the south-east angle of the mound, where a horseshoe shaped depression is so noticeable, the higher ground to the north has been examined, and a large square building has been uncovered (Pl. VII, Fig. 1). It proves to be contemporary with the Persian residency, which it resembles in plan, as the chambers are arranged round a square courtyard, with one external

entrance to the north-east, approached through a lobby. There is a row of square pillars west of the main apartment (Pl. VII, Fig. 2), separating it from a cobbled area beyond, which would provide ventilation and light from the back; the west wall is but a retaining wall against the terrace slopes.

Few objects were found, but there was evidence of late squatters in the Hellenistic sherds from the filling of the chamber. A large scarab of Amenhetep III, was found on the mud floor of one of the smaller apartments, showing how unreliable scarabs can be for dating buildings. The royal names "The Good God, Neb-Maat-Ra, Son of the Sun, Amenhetep, Prince of Thebes" are inscribed in cartouches, and below are the blundered additional titles: "Beloved of Amen, King of the Two Lands." The reading is suggested by Professor Glanville.

After the erection of the new chute at the south-east corner, we began the investigation of the great depression. In the previous season we had dug down to bedrock and exposed the corner of a rectangular excavation which suggested a shaft descending vertically through the rock. Time only allowed us to reach a point forty-five feet below the surface. It was therefore necessary to make further examination, before we could lay down a definite scheme of surface operations. We enlarged our earlier workings to a limit which we thought should embrace the corner of the rock cutting. Here our judgment fell short of the mark, but as the western side ran on beyond the scarp of our clearance, we resorted to the expedient of driving a tunnel following the vertical rock face. After some days, we struck the north-west angle, so that the west side measured seventy feet. With this data to go by, we commenced a similar tunnel along the south side. This was particularly difficult owing to large blocks of fallen masonry against the side, through which we had to cut our way. At long last, the south-east corner was reached, to the great joy of the workers, and the length of the south side proved to be eighty-five feet.

We can only speculate as to the use of this rectangular excavation, but there are some significant clues. Field archæo-

logists are always being asked : " How do you know that this, that, or the other existed in a site before you started digging ? " So I thought that our method of approaching this problem would be of interest. Naturally we must first consult our earliest documents ; the records of those who knew Lachish when she lived. Brought from Nineveh by that great pioneer, Sir Henry Layard, we have a contemporary picture of our city and its fortifications, based upon the field records of Sennacherib's staff. Low on the side of the mound, below the city walls, we see a towered gateway, with battlements manned by bowmen and slingers. Descending from this gateway is a procession of men and women, who, from their dress, are shown to be the besieged inhabitants, some carry bundles on their shoulders. At the base of this same scene, we see their heads only, as they move to the right.

Let us examine the present topographical features of the south-east side of Lachish, standing on the ridge across the eastern valley. Before us the crest of the city is silhouetted against the skyline and not far below it we observe the foundations of the outer defence wall. Above is the depression which marks the site of the great shaft. Below the mound, in the valley, is the escarpment of the Wadi Ghafr. There is therefore the suggestion of contact with our Assyrian picture. It prompts us to look for the towered gateway about half-way down the slopes, between the wall and the bed of the wadi, down into which the procession of human beings seems to go. The probable connection between the shaft we have found and a low external gateway is obvious. Examples of subterranean entrances are known to exist in several Palestinian sites, perhaps the most famous is under Ophel—the so-called " Siloam Tunnel," where a commemorative inscription was cut by the ancient excavators. Then there is the shaft and tunnel at Megiddo, found three years ago.

Is it then an unwarranted fantasy when we suggest that our shaft may provide descent from within the city to a passage or tunnel ? The proof of this theory will have to await the removal of the water-laid filling, which will probably run into some 50,000 truck loads of soil next season.

When labour was released from the western valley and saddle area, we concentrated on the region immediately within the city gate. We worked down through the upper levels, containing a mixture of late Judaean and Persian sherds. A jar handle of the latest Jewish period bears a seal impression of one "Shaphan the son of Zariyahu" (Pl. VI, Fig. 1). Flanking the roadway to the south, were the foundations of a complex of rooms, which we have not yet opened up, as we decided to work northwards. Passing over a large open area, which proved to be a town square, we struck further Persian foundations beyond, to the west of the Palace-Fort. As we expected, this level was unproductive of small objects, as the building had been denuded almost below floor level.

Under this Persian town, we picked up the burnt layer of the Zedekiah period, which we had traced into the city from the guardroom, where "The Lachish Letters" were found. The area inside the gate was already an open square in this period (Pl. I), and it was not until we got close under the walls of the Palace-Fort that we struck signs of buildings. True to their level, these were covered by the black fired layer, and each room, as it was cleared, contained masses of pottery, which implied that we were not dealing with normal dwellings. Great storage jars still stood in position, although smashed in a thousand fragments, due to the collapse of walls and roofing.

It soon became obvious that we were dealing with a commercial quarter (Pl. VI, Fig. 3), the quantity of large four-handled jars bearing the royal seal impression "For (or belonging to) the King" with "Hebron," "Socoh," "Ziph," or "Memshath" below, suggests that in this case we were salvaging a merchant's cellar. The adjoining premises were those of a corn chandler, for although we did not find a mill of large dimensions, there were two saddle querns, set up on stone and mud bases, no doubt used for the grinding of small quantities of cereals to order.

East of this parade of shops, was a weaver's establishment, and among the first objects found was the clay impression of a private seal, reading "For Hilkiah the son of Maas" (Pl. VI,

LOOKING NORTH FROM ABOVE CITY GATE ACROSS WESTERN TERRACE, SHOWING AREA EXCAVATED 1935-6. BEYOND OPEN MARKET SQUARE ARE THE REMAINS OF BURNT CITY LEVEL, DIPPING DOWN SOUTHWARDS FROM S.W. CORNER OF PALACE-FORT, PART OF COMMERCIAL QUARTER OF THE CITY. LOW AREA IN FOREGROUND OF EXCAVATIONS MARKS LINE OF MAIN ROAD, PASSING WESTWARDS TO OUTER GATE, EXTREME LEFT.

Fig. 1. Late Helladic II Vase.

Fig. 2. Censer and decorated cover.

FIG. 1. SKULL FROM VIITH-VIIITH CENTURY DEPOSIT, SHOWING PRIMITIVE SURGICAL HOLING. THERE ARE NO SIGNS OF REPARATION.

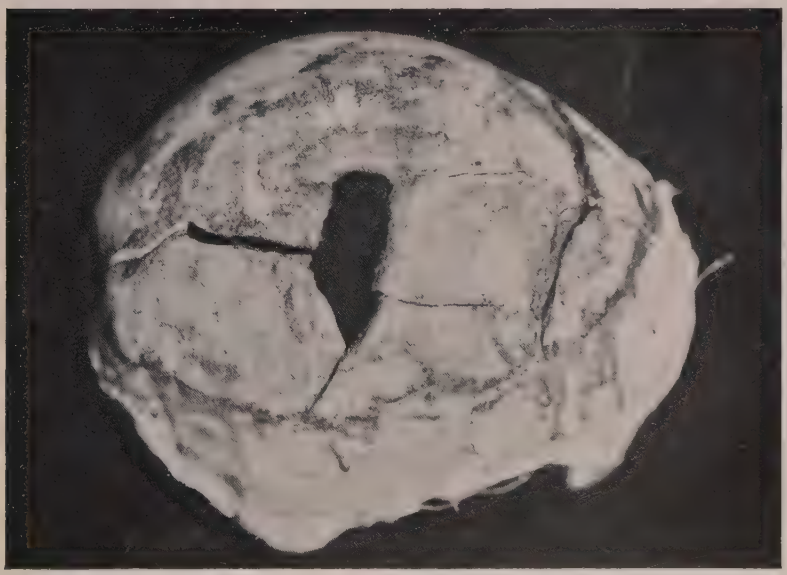


FIG. 2. PRIMITIVE SURGICAL OPERATION FOR REMOVAL OF BONE. THE METHOD IS MORE AKIN TO EUROPEAN TYPE OF SCRAPING, AND AS THE EDGES OF THE HOLE ARE SMOOTH AND ROUNDED, THE PATIENT RECOVERED.

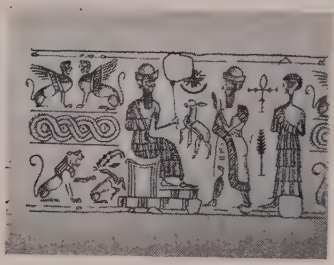


FIG. 1. DRAWING OF HAEMATITE CYLINDER SEAL FROM MIDDLE TEMPLE LEVEL.

FIG. 2. GOLD PENDANT OF FEATURES OF BEARDED MAN.

FIG. 3. BRONZE STATUETTE OF RESHEF (TESHUB, SYRIAN WAR GOD)

FIG. 1. XVIIITH-XIXTH DYNASTY TEMPLE, SHOWING STONE BENCH OF MIDDLE TEMPLE, AND POTTERY DEPOSIT BELONGING TO EARLIER TEMPLE BELOW. FOUR-HANDLED JAR SET INTO FLOOR FOR LIBATION.

FIG. 2. LOOKING SOUTH-WEST ACROSS CORNER OF SANCTUARY, SHOWING EARLIEST MUD BENCH WITH TRIPLE ALTAR. ONE OF THE TWO STONE BASES FOR WOODEN ROOFING SUPPORT, BOTTOM RIGHT. CENTRE RIGHT PRIEST'S CHAMBER TO WEST. NOTE CIRCULAR RUBBISH PITS, FOR TEMPLE REFUSE.

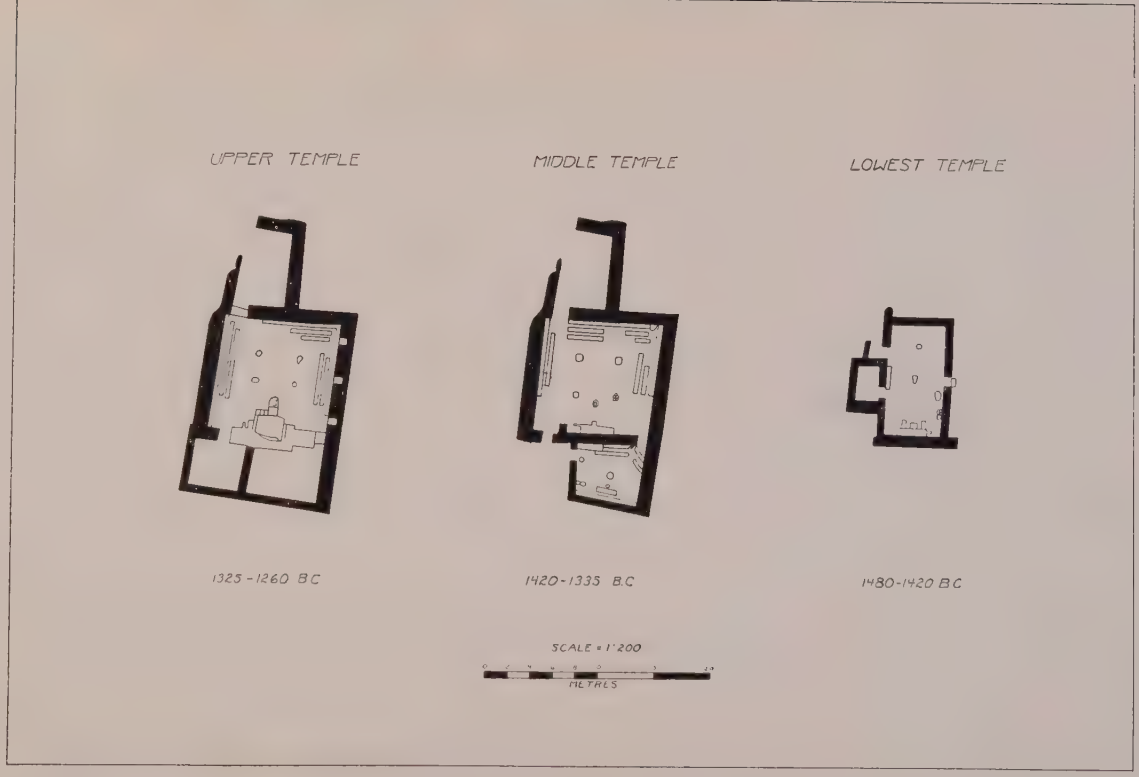
FIG. 1. JAR HANDLE WITH SEAL IMPRESSION "FOR SHAPHAN THE SON OF ZARIYAHU."

FIG. 2. CLAY SEALING WITH INSCRIPTION: "FOR (OR BELONGING TO) HILKIAH THE SON OF MAAS." ON REVERSE IS THE IMPRESS OF PAPYRUS TO WHICH IT WAS ATTACHED.

FIG. 3. LOOKING ACROSS BURNT SHOP ADJOINING OPEN AREA WITHIN CITY GATE, LEFT: ABUTTING ON SOUTH-WEST CORNER OF PALACE-FORT. ZEDEKIAH PERIOD.

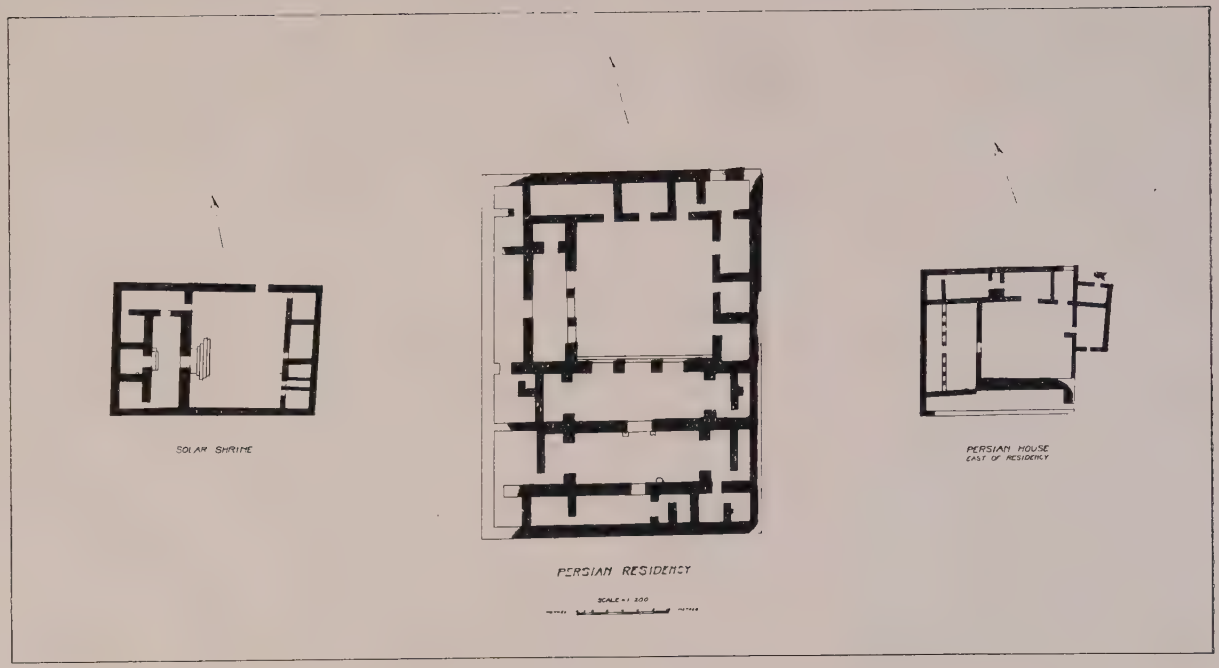
FIG. 1. PERSIAN MANSION ADJOINING SOUTH-EAST DEPRESSION, ENTRANCE TO OPEN COURT EXTREME RIGHT, ROOM WITH PILLARS LEFT.

FIG. 2. LOOKING NORTH-EAST ACROSS COBBLED AREA, SHOWING ADJOINING CHAMBER WITH PLASTERED FLOOR NEAR BOY, EXTREME RIGHT: CORNER OF COURTYARD AND ANTE-CHAMBER BEYOND, WITH DOORSILL IN POSITION.



XVIIIth-XIXth Dynasty Temples.

Three superimposed buildings, below the north-west slopes of the mound, founded on the rubbish filling the abandoned moat of the "Hyksos" period. Upper temple was destroyed by fire, Middle temple shows the enlarged plan with offering benches, and four roofing supports. Lower temple was the original sanctuary with priest's room to west, it was devoid of benches, and had but two roofing supports.



BUILDINGS OF POST-EXILIC PERIOD.

SOLAR SHRINE IN NORTH-EAST QUARTER OF THE CITY, WITH RAISED SANCTUARY, APPROACHED BY STEPS.
GOVERNOR'S RESIDENCE, WITH PRIVATE APARTMENTS IN THE SOUTHERN HALF, MUNICIPAL OFFICES ARRANGED ROUND AN OPEN COURTYARD.
HOUSE IN EASTERN QUARTER OF CITY, CONFORMING TO THE SAME STYLE OF PLAN.

Fig. 2), and on the back was the impress of the papyrus document to which it was once attached. Here we are reminded of the seal found last year of Gedaliah, which showed similar evidence for the use of papyri at this period.

On the floor, aligned against a raised cobbled platform, were groups of mud loom weights, indicating the position of the weaving machinery. An upright member of one of these machines was still in position, reduced to charcoal. A limestone roof roller lay on the floor, of a type still to be seen in use to-day in Palestine, hidden behind the roof coping. A limestone dyeing vat shows that this complementary industry was undertaken on the premises. So here in a small space we were brought face to face with the crafts of ancient Judah, as they flourished before the devastation wrought by Babylonian conquest.

Now it is left for me to express, for myself and my colleagues, our deepest sense of gratitude to those who alone have made our researches possible. Sir Henry Wellcome, with Sir Charles Marston and Sir Robert Mond, have continued their wholehearted support. The conclusion of a fourth season has, I trust, produced results commensurate to their confidence. The staff of the Wellcome Institution, through Sir Henry's senior officers, Mr. Moore, Dr. Wenyon, Captain Johnston-Saint, Mr. Dean and Mr. Port, have ever extended their fullest co-operation, and we offer them our most grateful thanks.

The Hittites in Palestine. I.

By Dr. E. O. Forrer

When the scientific use of the name "Hittites" was introduced by W. Wright and A. H. Sayce, after the discovery of the hieroglyphic stone inscriptions of Hamath on the Orontes, it designated, for the scholars of that generation, mainly the civilization represented by this undeciphered script, which was found, not only in central and northern Syria, but also in the central plateau of Asia Minor.

It was only natural that the Hittites, known as *Kheta* in the Egyptian records of the thirteenth century B.C., as *Hittim* in the Old Testament, and as *Ḫatti* by the Assyrians from 1100 to 700 B.C., should have been regarded as one and the same people, speaking the same language. There was thus no difficulty in explaining the frequent mention of Hittites in the Bible: it was supposed that the Hittites were an indigenous people of Palestine and Coele-Syria; that in Palestine they were supplanted, first by the Semitic Canaanites, then by the Israelites, save for a few spots near Jerusalem and Hebron, where they maintained a footing; while, in northern Syria and Asia Minor they preserved their political power and organization intact until they were crushed by the Assyrian Empire about 700 B.C.

Hence the problem raised by the occurrences of the name "Hittite" in the Bible was one of distinguishing between the Hittites as the remnant of an original population of Palestine on the one hand, and the Hittites as an independent political power in northern Syria on the other.

But the problem was complicated by H. Winckler's fortunate discovery of the archives at Boghaz-keuy in central Anatolia, containing thousands of tablets with cuneiform writing. Since not the cuneiform but the hieroglyphic script was, in the minds of scholars, characteristic of the Hittites, they thought at first that they had discovered the capital of another state, that of

Arzawa, because of the fact that the language of these cuneiform tablets agreed with that of a letter written to Tarhunda-radu, King of Arzawa, by Amenophis III, King of Egypt, and found at Tel el-Amarna, the residence of his son, Akh-n-aten. But Winckler quickly recognized that he had discovered the actual capital of the Hittite Empire.

At this stage of our knowledge, Fr. Böhl of Leyden dealt with the subject of the Hittites in an excellent monograph entitled "*Canaanites and Hebrews*"[1] embodying the results given above. At that time the language of the cuneiform texts from Boghaz-keuy was as little understood as that of the pictographic inscriptions, so that Böhl avoided the problem of the dual character of Hittite inscriptions.

It is a remarkable fact that, whereas the petty Hittite kings of northern Syria lavishly covered the walls of their palaces and temples with reliefs and pictographic inscriptions, not a trace of reliefs or pictographs was found in the temples and palaces in the Hittite capital at Boghaz-keuy ; hence there was no serious support for the theory that the Hittites used both, namely, cuneiform script for tablets, but hieroglyphic script for monumental purposes. Hence the problem arose of the relation between these two forms of Hittite script. Did they represent two different languages, one of which succeeded the other ? And if so, which of these two peoples were the Hittites of the Bible ?

Then Fr. Hrozny[2] deciphered the main language of the Boghaz-keuy texts in 1916, and found it closely related to the Indo-European languages, and especially, as he thought, to their western branch. This was completely contrary to current belief and to the apparently well-founded results of L. von Luschan's anthropological researches. It was unthinkable that Indo-Europeans could have been the original population of Asia Minor and Palestine.

As usual in such cases, a decennium of cleaning up the pre-

1. *Kanaanäer und Hebräer*, Leipzig, 1911.
2. *Die Sprache der Hethiter*, Leipzig, 1917.

judices of the scientific world was necessary before the idea of Indo-European Hittites remained master of the field. As far as the Hittites of the Bible were concerned, their Indo-European character could be admitted only for that portion of the Hittites which constituted a political entity in northern Syria. But the problem remained of arriving at a conception of the Hittites as an original element of the population of Palestine which might be compatible with their Indo-European character.

A new point of view emerged when the present writer recognized in 1919[3] that the main language of the Boghaz-keuy texts of an Indo-European character was not that of the "reciter of *Ḥatti*" nor that of *Ḥorri*, nor that of *Luvia*, nor that of *Balā*, but that used by the "reciter of *Kanis*"[4] and was called *Nasili*, Nasian, and that another entirely different non-Indoeuropean language occurring in the texts was used by the "reciter of Ḥatti" and was called *Ḥattili*, "Hittite." For the sake of clearness in terminology we have given to the latter language the name of "Proto-Hattian," because there can be no doubt that these Proto-Hattians were the original population of northern Asia Minor, and that the character of their language was exactly of such a kind as might be expected for the aboriginal people of Asia Minor, since it inflects nouns and verbs by means of prefixes, like the languages of the north-eastern Caucasus.

During the period of the new Hittite empire in the fourteenth and thirteenth centuries B.C., the Proto-Hattian language was already restricted to the area of the later Roman province of Pontus, and was used only by a part of the population, which, from the evidence of personal names and the language used in letters and treaties, consisted in the main of Luvians and Kanisians. The independent population of this area no longer called themselves Hatti but Gasga. At this time the term Hattili denoted the Proto-Hattian language, but Hatti as the name of a country signified the empire of the Kanisians, and for its subject

3. *Die acht Sprachen der Boghazköi-inschriften*, 1919. Sitzungsberichte der Preussischen Akademie der Wissenschaften LIII, 1029-1041.

4. Kanis is the same as Nesa, but with the Proto-Hattian prefix *ka-*, which perhaps corresponds to the Greek article, *i.e.*, τὰ Νύσα.

population, without respect to language, the Luvian derivative *Hattusas*, "the Hattian people," was used. Hatti ceased to be a living name for the Proto-Hattian people, which in reality no longer existed as a unity, but only as minorities mingled with other nationalities.

Under these circumstances it is highly improbable that the name Hatti as denoting the oldest indigenous population of Palestine, as distinct from the Hittite empire of the secondary Hittites, i.e., the Kanisians or Nasians, should have been preserved from the oldest times in Palestine. The more so since recent excavations in northern Syria show that the relations between the aborigines of Asia Minor, with their black burnished ware[5] and the south, were interrupted by an invasion of the polychrome and mostly lustrous ware,[6] coming from Upper Mesopotamia and certainly belonging to an entirely different people, at a date which must be at least before 3500 B.C. Hence it is difficult to believe that the name "Hittite" for the aborigines of Palestine could go back to such an early period, at which we can hardly assume the extension of one race-name over such a wide area.

The name Hatti, then, belonged originally to the indigenous population of Asia Minor and to its religious and political centre in the area surrounded by the Halys, probably until 2000 B.C. The Indo-European Kanisians or Nasians took over the political name of the Hatti-empire, and were thus called Hittites in a secondary sense by their neighbours. Their empire existed in Asia Minor from 2000 B.C., and onwards, with the Taurus range as their southern frontier which they occasionally crossed.

Thus the Horrian—but not Hittite—states of northern Syria were for a short time, in the eighteenth and fifteenth centuries B.C., politically dependent on the great king of the secondary

5. Attested at the lowest stratum at Ras Shamra (C. Schaeffer) and found by the present writer at Tell Berne, south of Halab.

6. Attested at Carchemish by Sir Leonard Woolley (*Iraq*, Vol. 1, November 2, 1934, p. 146-162), and found at Ras Shamra in the second stratum (C. Schaeffer). My excavation at Qal'at-er-Rus, 4ms. N. of Djeble, showed no trace of these two strata, although it was founded in Neolithic times.

Hittites, but it was only the conquest of northern and middle Syria by Subbiluliuma (better Soppilulioma) in 1354 B.C. which made the northern end of the Lebanon the permanent frontier of the Hittite empire. Northern Syria became part of the Hittite empire itself, while the states of Carchemish and Halaba became federal states under the sons of Soppilulioma as kings; but middle Syria, after some changes, remained a part of the state of Amurru, the Amorites, which became a tributary state, but did not belong to the federal states of the Hittite empire itself.

In 1354, when Soppilulioma conquered northern and middle Syria as far as Kinza, i.e., the Biblical Kadesh on the Orontes, he also raided Egyptian territory as far as the district of Aba (the Biblical Hobah), i.e., Damascus, and his generals Lupakki and Tessub-zalma led two further raids in the course of the next years into the Egyptian district of Amqa, the Biq'a-plain between Lebanon and Anti-Lebanon. *But at no time did any district south of the northern ends of Lebanon and Anti-Lebanon belong to the Hatti-empire, either as a federal or a dependent state*; all the country south of this frontier remained under Egyptian suzerainty.

Hence there was no "Hittite" state at all in Syria before 1354 B.C., and there was no "Hittite" state whatsoever south of the said Lebanon frontier at any time, nor did an army of the Hatti king enter Palestine proper at any time.[7] These are facts which must be remembered in explaining the Biblical mentions of the Hittites.

This territorial distribution continued until the fall of the Hittite empire in 1191 B.C., when, in the eighth year of Ramses III, "the sea-peoples dispersed themselves from their islands destroying every land. No country could resist them, neither Hatti, nor Qdj (i.e., Halab), nor Carchemish, nor Arzawa (Cilicia),

7. It would thus seem to be impossible that Hattin, 3ms. W. of Tiberias, could have taken its name from its having been a Hittite stronghold, as Garstang suggests in his excellent book, *The Hittite Empire*, even if this name had *tt* instead of tt, which connects it with Arabic *hatta*, "to descend."

nor Alasija (Cyprus), which were smitten in pieces. They set up a camp [8] together in the midst of the land of Amurru, whose people were ruined. They came against Egypt, the Philistines, the Zakkari, the Sakalasa, the Danaans, the Wasasa, i.e., all countries, were their confederates. They laid hands on the countries in the whole circuit of the earth, and they boasted of their hearts' desire, saying 'our plans prosper.'" Thus do the annals of Ramses III describe the destruction of the Hittite empire.

As the result of this invasion from the west, the Hittite territory in Anatolia and northern Syria fell into the hands of new masters, who replaced the Kanisian Hittites. But the Assyrians had been in the habit of calling their western neighbour state of northern Syria Hatti, and *retained* this useful geographical nomenclature *in spite of its change* of masters, who, soon after 1100 B.C., fell into about thirty small kingdoms. But to the north of the Taurus range the Assyrians took over the indigenous name of the invading peoples and called the territory of the hieroglyphic inscriptions north of the Taurus, "the twenty-four kingdoms of the land of Tabali." [9]

Hence we may follow Assyrian usage and call this third kind of Hittites "Tabalians." [10]

As the result of the present writer's decipherment [11] of the hieroglyphic Hittite, or better, Tabalian inscriptions, we know that they do not belong to the Hittite empire of the Kanisians, but are for the most part of later date; further, we know that their language is not the Kanisian language of the cuneiform texts from Boghaz-keuy, but another language, also related to the Indo-European family.

Hence the Tabalians of northern Syria are Hittites only in the speech of their Assyrian neighbours, and did not call themselves Hittites. They are the third kind of Hittites, and it was

8. This is perhaps the large camp, of about 240 acres, discovered by the present writer in 1934 at Nasrije on the Orontes, N.W. of Hamath.

9. Shalmanezer III, Annals 1, 105, in 836 B.C.

10. They are, of course, identical with Tubal. Gen. x. 2 et al.

11. *Die hethitische Bilderschrift.* Studies in Ancient Oriental Civilisation, No. 3. Chicago, 1932. My Tabalian Grammar will shortly appear.

their pictographic inscriptions which formed the starting-point of the long and intricate story of the name Hittite. It will, therefore, conduce to clearness if we distinguish the different kinds of Hittites by numerals, as follows :

(a) Hittites I. Proto-Hattians, called Hittites by themselves.

(b) Hittites II. Kanisians, Nasians, or Nesians, called Hittites by their neighbours.

(c) Hittites III. Tabalians, called Hittites by the Assyrians.

(d) Hittites IV. The people of Kurustama in Palestine, whom we shall shortly recognize as the fourth kind of Hittites.

(e) Hittites V. By this term we denote those so-called Hittites who never existed in ancient times, and who are only to be found in certain late books, in places, times and civilizations which were never Hittite I, II, III, or IV.

By the invasion of the sea-peoples in 1191 B.C., Palestine exchanged Egyptian domination for that of the Philistines. The seven kingdoms of the Hittites III, i.e., the Tabalians in northern and middle Syria, remained in existence until the Assyrians turned them into provinces in the following order : [12]

856 B.C. Bit-Adini, capital—Til-Barsib (Tell Ahmar) (p. 56, *op. cit.*)

740 B.C. Ja$\breve{h}$anu, capital—Arpaddu (Tell Erfad) (p. 56).

740 B.C. Patina (Hattina ?) or Unqi — capital — Kunulua (p. 57).

738 B.C. The greater part of Amurru, i.e., Hamath, out of which were formed the provinces $\breve{H}$atarikka, Mannusuate, Kullania, Simirra (p. 58).

720 B.C. The rest of Hamath (p. 63).

717 B.C. Gargamis, capital—Gargamis (Carchemish) (p. 73).

711 B.C. Gurguma, capital—Marqaši (Mar'ash) (p. 77).

12. E. O. Forrer, *Provinzeinteilung des assyrischen Reiches*, 1920, pp. 25, 56, 57, 58, 63, 73, 77, 78.

708 B.C. Kummuḫu, capital—Kummuḫu (Samsat) (p. 78).

We know positively from frequent occurrences in their inscriptions that the Assyrians called these kingdoms Ḫatti, i.e., Hittites III, and we have now to discuss the question whether also the *southern neighbours* of the Hittite II empire retained this name for northern Syria and then transferred it to the Hittites III, i.e., the Tabalians.

Three Biblical passages seem to bear witness to the use of the name Hittites for the Tabalian kingdoms in northern Syria :

i. 1 Kings x, 29 (2 Chron. i, 17). Here we are told that Solomon acted as a middleman, bringing horses out of Egypt and selling them to the kings of the Hittites and the kings of the Arameans.

ii. 1 Kings xi, 1. Here it is stated that Solomon had Hittites among his foreign wives. The date of this would be about 950 B.C.

iii. 2 Kings vii, 6. This passage suggests that when Ben-Hadad, the King of Aram was besieging Samaria, the kings of the Hittites and the kings of Egypt might have been the allies of Joram, the king of Israel. The date of the siege was 841 B.C. [13]

The mention of Hittite kings in the last passage shows that the author of this story, whose date is usually assigned to the ninth or eighth century, is unaware of the historical circumstances of this siege of Samaria by Ben-Hadad. He is right in saying that the flight of the Arameans was caused by the arrival of the allies of Israel, but these were not the Hittites. During the whole of this period the *Hittite* kings were allied with Ben-Hadad against the Assyrian king, Shalmanezer III, as we know from the annals of his 6th (853), 11th (848), 14th (845) and 18th (841) years.

13. The comparison of the Annals of the 18th year (841) of Shalmanezer III, with the text published by L. Messerschmidt in *Keilschrifttexte aus Assur historischen Inhalts*, I 1911, No. 30, I 14-35, shews that Adad-idri the (Biblical Ben-Hadad) died in 841 B.C., and was succeeded by Ḫazailu, being the year in which Jaua, "son" of Ḫumri, *i.e.*, Jehu, succeeded Joram as King of Israel. The real reason for the sudden abandonment of the siege of Samaria by Ben-Hadad, *i.e.*, Adadidri, will thus have been the arrival of Shalmanezer in his rear.

But the involuntary ally, who saved Samaria, was Shalmanezer III, who attacked Ben-Hadad in the rear, and not the Hittite or the Egyptian kings. Hence the author of the story must have lived at a date when the political situation of the year 841 was forgotten, i.e., two or three generations later, when no contemporary witnesses of the event remained. In this case, the author will have been so nearly a contemporary of the Assyrian conquest of northern and southern Syria (which began in 743 B.C.), that it is safer to assume that he followed the *Assyrian* custom of calling the Tabalians Hittites, than that the Israelites themselves gave this name to the Tabalians. But since the Israelites were separated from the Tabalians by the Arameans, it is more likely that the Israelites took over from the Arameans the custom of calling the Tabalians by the name Hittites. It is also highly probable that the Arameans in their turn, after they had conquered nearly the whole Assyrian territory, about 1000 B.C., and had held it till 900 B.C.,[14] should have taken over the Assyrian name for the Tabalians, even though there is no mention of the Hittites in the few Aramean inscriptions which we possess.

One other passage attesting this Assyro-Aramean use of the name "Hittite" for the Tabalians is found in the LXX version of 2 Sam. xxiv, 6, where the well-known town of Kadesh (on the Orontes) is described as lying in the land of the Hittites.

All the other mentions of the Hittites in the Bible refer to a non-Semitic element of the population of Palestine whose ancestor was supposed to be Heth. Geographically, only four points of this Hittite territory in Palestine are known.

First, we learn that "the children of Heth" lived at *Hebron*, twenty miles south of Jerusalem, and among them "Ephron, the Hittite," the son of Zohar (Gen. xxiii, 3, 5, 7, 10, 16, 18, 20; xxv, 9, 10; xlix, 29, 32; l, 13). From the context it is clear that Hittites constituted the whole population of Hebron, since Abraham calls himself a foreigner (*gēr*) and a settler (*tōshāb*) (Gen. xxiii, 4), while the Hittites are called "natives" ('am

14. *Cf.* my history of the Arameans in the *Reallexicon der Assyriologie*, I (1929), pp. 133, 135, s.v. Aramu.

ha'āres) (Gen. xxiii, 7, 12), i.e., the ruling population of the country.

Second, after Isaac, the son of Abraham, coming from Reho-both, i.e., from the south, had reached Beersheba, 30 miles south-west of Hebron, his son Esau married Judith, the daughter of Beeri, the Hittite, and Basemath, the daughter of Elon, the Hittite (Gen. xxvi, 34), and his mother Rebecca calls them " indigenous " (Gen. xxviii, 46). This leaves no doubt that the indigenous population round Beersheba was Hittite, because there is no indication that Esau got his wives from outside, e.g., from Hebron.[15]

Third, we have evidence for Hittites in Jerusalem, whose " father was an Amorite " and whose " mother was a Hittite " (Ezek xvi, 3, 45). The Amorite father was the Amorite tribe Jebus, which we know from very early times, since its name occurs as that of the city Jabušum on the north-west frontier of Babylonia, mentioned by Šamšu-ilu-a (1913-1875) as a fortress founded by Šumu-la-ili (2043-2008 B.C.) and restored by himself.[16] In the interval between these two kings the early Assyrian Šarru-kin (circ. 1980-1948) mentions the city Jabuše as the southern frontier of the district of Rapiqu at the entrance to the Babylonian plain.[17]

It is impossible to determine whether Jabušum on the Euphrates and Jebus (Jerusalem) were founded by parts of the same Amorite tribe, or whether the Jabuše-Amorites were driven out from Mesopotamia and settled in Jerusalem or the reverse. In any case, the statement that the father of Jerusalem

15. According to Gen. xxxvi. 2-3, Esau married Canaanite (*i.e.*, non-Israelite) wives : (1) Adah, the daughter of Elon, the Hittite, (2) Oholi-bamah, the daughter of Anah, the son (R.V. mg.) of Zibeon the Horite, and (3) Basemath, the daughter of Ishmael, sister of Nebaioth (*i.e.*, a Nabataean). It is clear from the context that this is the tradition of the different clans of Edom concerning their descent, and not an historical narrative, as in Gen. xxvi.

16. Brit. Mus. Text 22507, publ. and transl. by L. W. King, *Hammurapi* III, 199 ff. The name Jabusum in l. 50 was misread as Jabugani by King.

17. Text VAT 13008 Obv. 7, publ. by O. Schroeder, KAVI, Nr. 92, discussed by E. O. Forrer in *Reallexikon der Assyriologie* I (1929), p. 257, s.v. Assyrien.

was an Amorite and its mother a Hittite should mean that a Hittite city was taken by Amorite, and not the reverse[18]. Hence it would appear that before the arrival of the Jebusites Jerusalem was a Hittite city.

The fourth point is Bethel, 12 miles north of Jerusalem. The reasons for assuming that its population was Hittite are the following. We are told in Judges i, 22-6, that when the tribe of Joseph took Bethel, the original name of which was Luz, they allowed the man who showed them the way into the city to escape with his family. It is then said that the man "went into the land of the Hittites, and built a city, and called the name thereof Luz."[19] We might hazard the conjecture that the man would seek a new home among men of his own race.

But, even if the assumption of the presence of Hittites at Bethel be rejected, we have evidence for the presence of a Hittite population extending from Beersheba, by way of Hebron, to Jerusalem, over a district of more than 50 miles in length, i.e., about a third of the total length of Palestine, but restricted to the ridge of the hill-country of Judah.

The district of Jerusalem, Hebron and Debir (half-way between Hebron and Beersheba) is just that part of Palestine which the Jews under Joshua conquered first. It is the poorest part, which invaders, taking the better part of the country, would leave to later comers. We have this country of the Hittites defined in the description of the land of Canaan which is brought by the spies of Moses (Num. xiii, 29): "The Amalekites dwell in the land of the south: and the Hittite and the Jebusite and the Amorite dwell in the mountains: and the Canaanite dwelleth by the sea, and along by the side of Jordan." In the mountain, or hill-country, Jerusalem is the only place for which we have

18. Here we have another passage in which the term Hittite is used in the *Assyrian* sense for the Tabalian kingdoms in northern Syria.

19. There is no city of this name known in northern Syria. There is, indeed, a village in Phoenicia with a tell called Lozi on the Turkish 1: 200,000 map, 7 ms. S.E. of Tartus, 2 miles from the seashore; but it seems an excellent idea, suggested to me by A. Dunand, the excavator of Byblos, that this site should be identified with Ullaza of the Amarna-Letters. Phoenicia is *not* usually the land of the Hittites III.

evidence of Jebusite occupation. We find Amorites in the territory of Dan, where they occupy Har-Heres, Aijalon, and Shaalbim (Judges i, 34-6), and, immediately to the east, Gibeon[20] (2 Sam. xxi, 2), to which also belong the villages of Chephirah, Beeroth and Kiriath-jearim (Joshua ix, 17). According to Joshua x, 5, the kings of Jerusalem, Hebron, Jarmuth, Lachish and Eglon are Amorites, but according to the LXX, Jebusites. Farther to the north the mountain-ridge of Shechem belonged to the Amorites at one time (Gen. xlviii, 22). All the rest of the hill-country we may assign to the Hittites.

It is these Hittites on the mountain-ridge of Judah whom we propose to call Hittites IV, and it is this use of the term "Hittites" which is specific to Palestine itself. It seems, however, that in one particular case the Assyrians took over this local meaning of the name "Hittite." After Sargon III had set up Ahimiti as King of Ashdod, the *Hatti* (var. *Hatte*) revolted against him in 711 B.C., but Sargon seized the cities of Ashdod, Gimtu (Gath), and Asdudimmu.[21] Here the Hatti can be nothing else but the indigenous population of the kingdom of Ashdod, whose extension into the hill-country is uncertain, but may be inferred from the fact that Gimtu (Gath) was one of its main cities. Since Gath is not more than 14 miles from the centre of the line between Jerusalem and Hebron, there can be no doubt that the Hittites who belonged to the kingdom of Ashdod, are Hittites IV, i.e., the same as the Hittites of Jerusalem, Hebron, Beersheba and the hill-country of Judah.[22]

The confusion of Hittites III with Hittites IV, i.e., of the Assyrian name for the Tabalians with the Palestinian Hittites has been the cause of much difficulty in Joshua 1, 2-4. Here Jahweh says to Joshua: "Arise, go over this Jordan, thou, and all this people, unto the land which I do give to them, even to the

20. In Joshua ix. 7 they are Hivites.

21. H. Winckler: *Die Keilschrifttexte Sargons*, Leipzig, 1889. Annals, l. 220, and Prunkinschrift, l. 95.

22. But the name of the inner Arabian tribe Hattiaa, which Fr. Böhl, *op cit.* p. 28, recalls here, is a different one and has no relation to Palestine whatever.

children of Israel. Every place that the sole of your foot shall tread upon, to you have I given it, as I spake unto Moses. From the wilderness and this Lebanon, even unto the great river, the river Euphrates, all the land of the Hittites,[23] and unto the great sea toward the going down of the sun, shall be your border." Thereupon they proceed to conquer the land west of the Jordan, and first of all exactly the country of the Palestinian Hittites. Hence the words " the whole land of the Hittites " are correct if they be taken to denote the territory of the Palestinian Hittites IV. But the words " from the wilderness and this Lebanon, even unto the great river, the river Euphrates," correctly describe the boundaries of the Hittites III, i.e., of the Tabalian kingdoms between the Euphrates, the steppes, and the Lebanon, a description which excludes exactly that country upon which the Israelites actually set their foot, namely, Palestine. Thus there can be no doubt that this description is an erroneous explanation of the words: " the whole land of the Hittites," written from the Assyrian or Aramean point of view by an author who had no remembrance of the ancient Hittite population of the hill-country of Judah. [24]

Hence it is certain that when the Israelites arrived in Palestine they found the greater part of the hill-country of Judah occupied by " Hittites," who were partly exterminated, partly subjugated by them. This explains the fact that in the twenty-one Biblical lists of the seven peoples who inhabited Palestine before the Israelites, the Hittites stand in the first place six times, nine times in the second, three times in the third, and only once in the fourth, as may be seen from the accompanying synopsis. In this way did

23. These last words are wanting in the LXX and in the parallel passage in Deut. xi. 24.

24. Two important conclusions follow from this: (1) The words of Moses' prophecy are older than the taking over by the Israelites of the Assyro-Aramean use of the term " Hittites " for the Tabalians, *i.e.*, certainly older than 1000 B.C.— (2) The omission of the words " the whole land of the Hittites " from the LXX does not in any way prove that they were added to the Hebrew text after the translation of the LXX, but that the LXX translators, in attempting to correct the Hebrew text, corrected it wrongly in this case.

their presumptive ancestor Heth find a place in the list of peoples in Gen. x, 15, and 1 Chron. i, 13.

	Canaanites	Hittites	Amorites	Perizzites	Hivites	Jebusites	Girgashites
1. Gen. 13 : 7	1	–	–	2	–	–	–
2. ,, 15 : 19–21*	5	1	4	2	(3)	7	6
3. ,, 34 : 30	1	–	–	2	–	–	–
4. Exod. 3 : 8	1	2	3	4	5	6	–
5. ,, 3 : 17	1	2	3	4	5	6	–
6. ,, 13 : 5	1	2	3	–	4	5	–
7. ,, 23 : 23	4	2	1	3	5	6	–
8. ,, 23 : 28	2	3	–	–	1	–	–
9. ,, 33 : 2	1	3	2	4	5	6	–
10. Deut. 7 : 1	4	1	3	5	6	7	2
11. ,, 20 : 17	3	1	2	4	5	6	–
12. Jos. 3 : 10	1	2	6	4	3	7	5
13. ,, 9 : 1	3	1	2	4	5	6	–
14. ,, 11 : 3	1	3	2	4	6	5	–
15. ,, 12 : 8	3	1	2	4	5	6	–
16. ,, 24 : 11	3	4	1	2	6	7	5
17. Jud. 3 : 5	1	2	3	4	5	6	–
18. 1 Kings 9 : 20	–	2	1	3	4	5	–
19. Ezra 9 : 1†	1	2	8	3	–	4	–
20. Neh. 9 : 8	1	2	3	4	–	5	6
21. 2 Chr. 8 : 7	–	1	2	3	4	5	–

*Before the Hittites are also named: the Kenites, Kenizzites, Kadmonites. The Hivites are replaced by the Rephaim (Riphaites).

†5. Ammonites. 6. Moabites. 7. Egyptians.

To be continued.

The Percy Sladen Expedition to Lake Huleh, 1935

By Roger Washbourn

PALESTINE and Syria are of interest to a biologist because they lie near the borders of two of the great zoogeographical regions of the world, the Palæarctic and the Ethiopian. These two regions comprise on the one hand all of temperate Europe and Asia, on the other the greater part of Africa and south Arabia. Their faunas are in many respects dissimilar, and even the affinities of their faunas are remote. It is always of interest to study the extent to which there is an intermingling of the faunas in areas of country which are contiguous to two regions of this sort ; but in Palestine the interest is perhaps the greater because of a very considerable variation of climate and habitat, ranging from the arid desert to conditions such as those on Mount Hermon with its low winter temperatures.

The animals and plants of Palestine have not as yet been completely studied, though, since the journeys of Tristram, several workers have made valuable contributions to our knowledge of certain groups. The need for further work on the fresh water biology of Palestine is very apparent. Even the Jordan Valley has been comparatively little studied, although in 1915 Annandale made collections of animals from Lake Tiberias. His collections showed that there were facts of considerable interest about the fauna of this lake. For, in addition to finding a remarkable blind well-prawn (Tiphlocaris), he noted that, while nearly all the animals of Lake Tiberias were related to those of the regions around the Mediterranean Sea, there was among the fishes a series of forms which have no affinity with any found elsewhere in the Palæarctic region except in the Jordan Valley and a few neighbouring rivers. These fishes are the Cichlidæ, and include those known as " Mussht " and " Ougr " by the fishermen of Tiberias. They are clearly related to very similar species inhabiting the Lakes of East Africa. They have therefore clearly " Ethiopian " affinity ; we shall refer to them later.

While Lake Tiberias has been fairly completely studied, Lake Huleh and the surrounding swamps have been more or less neglected, the only published work known to the writer being an account by Th. Barrois who visited it, among other lakes in Syria, in 1890.

Lake Huleh is very different from Lake Tiberias, and it was considered likely that it might have a very different fauna. In this fauna there might well be animals of Ethiopian affinity differing from those of Lake Tiberias. This point could only be determined by investigations on the spot, and a biological survey became all the more urgent when it was learned that the whole Huleh Lake and swamp were to be drained and converted into agricultural land. An expedition was accordingly financed by the Percy Sladen Memorial Fund, and work was started in August of last year and continued until December. The expedition was composed of two biologists only, Mr. R. F. Jones, B.Sc., a botanist, and the present writer, zoologist.

Throughout the work the main object of the expedition—the collection of animals and plants—was never lost sight of, but in addition attention was paid to other points of biological interest. The plant ecology of swamps such as those to the north of Lake Huleh has been incompletely studied and Mr. Jones paid great attention to the study of interrelationships between the various types of plants which made up the swamp. A small chemical laboratory was established, so that the main features of the chemistry of the water might be studied and compared with those already known to characterise Lake Tiberias. Finally, notes were made of the distribution of the animals and plants collected, so that the habitats of any that were found might be adequately described.

Lake Huleh lies in a plain. This is enclosed on the north by the foothills of Mount Hermon, on the east by the low mountains which run parallel to the Jordan up to the Hermon range, on the west by mountains running north from the Safad region. To the south the plain is closed by low hills, through which the river Jordan runs in a deep gorge. The Huleh plain lies at sea

level, so that there is a drop of over 600 feet between the outflow of the Jordan from Huleh Lake, at Jissr Banat Yacoub, and the level of Lake Tiberias. The River Jordan runs from north to south through the Huleh plain, passing through reclaimed and cultivated land, then through an extensive area of papyrus swamp, to open into the northern end of Lake Huleh. As the Jordan flows southwards, tributaries branch off from the main river, to rejoin it further on, and it is said that the size of these tributaries varies from year to year, so that it is difficult to determine which is the main channel. The Lake Huleh itself is some five miles long and two and a half miles broad at its widest. It is, as the map shows, roughly pearshaped, with the narrow end towards the south. At the present time the swamp extends as far north as the Arab village of Buseweye about four miles from the northern limit of the Lake. The Lake is very shallow, being at a maximum seven to ten feet deep, and over its greater area about half that depth. The bottom is muddy, and is much colonised by water plants, which cover considerable areas during the summer. The shore of the lake is stony. Numerous springs run into it from the hills of Syria on the east, and several wadis and one major spring (Nahr-el-barid) from the limestone hills of the west.

The papyrus swamp, which lies to the north of the Lake is composed largely of a dense tangle of papyrus, but it is by no means homogeneous. In many places the papyrus is replaced by reeds, and there are many areas of open water, usually covered with water lilies. There are also several narrow channels of flowing water running through the swamp. The appearance of the areas of papyrus differs very much in different parts of the swamp, for the papyrus will grow in anything from comparatively dry soil to 5 feet of water. In general the " ground " of the swamp, whether wet or dry, is composed of vegetable debris bound together by the horizontal roots of the papyrus. Where the swamp is dry the " ground " is quite firm, and there may be two or more feet of a true black soil, but in the wet swamp the ground is treacherous and consists merely of black

mud loosely bound together by the papyrus roots. In such places it is possible for a man to sink at least waist deep in the mud. In the dry parts of the swamp, particularly where there has been clearing of the papyrus by the fellahin there may be colonisation of the ground by flowering plants, woody shrubs etc. ; but in the wet swamp the vegetation is composed nearly exclusively of papyrus and ferns. The level of the water in the swamp is subject to considerable fluctuations, and areas which during the summer were dry soon became submerged after the first rains. The swamp appears to rest ultimately on the alluvial clay of the valley, and there is no very considerable depth of vegetable debris—as borings made by the engineers of Messrs. Rendell Tritton and Palmer showed. At the northern end of the lake the swamp ends more or less abruptly. Along the north eastern side, the free water of the lake runs right up to the main papyrus swamp, but on the western and north western sides, there are small islands of papyrus and reeds growing in the lake itself. There is in addition a zone of water lilies some 200 yards broad running parallel with the northern end of the lake. This corresponds in position with a mud bank extending across the lake in this region—the result, no doubt, of the deposition of mud brought down by the swiftly flowing Jordan.

The animals and plants collected by the expedition have not yet been fully studied, so we can at present give no more than a general account of the fauna and flora of the lake and the swamp.

The lake and the swamp are as strikingly different in their fauna and flora as they are in appearance, and almost without exception animals which inhabit the lake do not penetrate into the swamp, or vice versa. This is also true of certain plants, the white water lily being absent from the water lily zone of the lake, but occurring to a certain extent in the swamp. The fish fauna of Lake Huleh is much the same as that of Lake Tiberias, but there is not so great a variety of species. The muddy bottom of the lake supports an amazing abundance of

the gastropod mollusc *Melanopsis*, as well as numerous small worms, and larvæ of Diptera, etc. We were surprised not to find very many bivalve molluscs, because up to a few years ago there was a local mother-of-pearl industry depending on these. We were also surprised by the poverty of the plankton, the small floating animals and plants which live in the upper layers of the water. The animals of the shore regions of the lake do not call for any special comment. At the time of year at which we visited the swamp, we found that there was a paucity of animals. There were, of course, numerous mosquitoes of various species, and many other insects. Worms were common in the wet soil of the swamp, and probably these exert a considerable modifying influence on the structure of the soil. Turtles, again, were abundant, but they were all of one species, and we did not find the rare *Trionyx galileæ*, which is believed to occur in the swamp. Other reptiles were not common, chamæleons and small lizards are found on the edges of the swamp, and the grass snake *Tropidonotus tesselatus* seems to be the only snake. Of amphibia two species of frogs are common. We were unfortunately unable to make collections of mammals from the swamp, but an otter was once observed, and a hedgehog was once brought to me by a Fellah who alleged that it had been caught in the swamp. Small rodents were observed, and the wild boar is also recorded from Huleh. The birds are particularly interesting during the winter, for at that time there is a very large migration of ducks and wading birds, which make Huleh a well-known sporting ground. Many of the species are common to Europe generally, but it is probable that there is much of interest in the bird fauna of Huleh throughout the year.

The comparative paucity of animals may be due in part to the unfavourable time of year at which we visited Huleh, but it may also be due to the high amount of carbon dioxide and the low amount of oxygen present in the swamp water. Both these factors have been shown to have serious physiological effects on animals, and together with the great fluctuations in

water level may have been responsible for the small lists of animals which have previously been found in the swamp.

Mr. Jones was interested in the possibility of the encroachment of the swamp on the lake. He believes that the mud bank on the northern and north western side of the lake is becoming colonised by isolated patches of reeds, which are consolidating to form a single mass. This would result in a movement of the mud bank further out into the lake, since this bank is formed by disposition from the river water brought down by the Jordan. A consequence of this would be a further colonisation by reeds, until finally the lake would become merely part of a large swamp.

The full results of the Expedition will only be known when all the specimens are fully studied, and when the fauna is compared with that found by Annandale in Lake Tiberias. It may be that the question of the origin and affinity of the Jordan fauna will then be further explained by the collections from Lake Huleh.

According to Annandale the explanation of the Ethiopian affinity of the fish fauna of the Jordan is that the Jordan formed at one time merely part of a river system that ran down the great Rift Valley. The Jordan was one branch of this huge river system, the chain of Lakes in East Africa represents the other; and together they opened into the Indian Ocean. It is easy to see that there would thus be an opportunity for the intermingling of the fauna of a single river system, and the presence of the Cichlidæ in the Jordan would thus be explained; but the absence of any invertebrate of Ethiopian affinity in the Jordan is curious, and to my mind not adequately explained on the theory that the Lakes of the Jordan may have been much more salt in earlier times than they are today.

Whatever be the results of the present expedition, we feel that there is opportunity for further work on Lake Huleh. Our work was done in the summer and autumn; in a country such as Palestine, where the spring marks the maximum of plant and animals production, a biological survey would be incomplete if the investigation did not include studies done in

the spring. Many species may appear in the spring which are entirely absent in the late summer. In addition to this, owing to our limited personnel, certain groups, notably mammals and birds have had to be omitted from study, while our collections of insects could not be as complete as was desirable. Much of the swamp remains unexplored, owing to the great difficulty of transport, and to the fact that our time was fully occupied in studying the more accessible parts. If a full account of the biology of the Huleh region is ever to be obtained, these points will have to be cleared up before the physical features of the district have been changed by the drainage works now in progress. Such an account in my opinion is desirable, and it can only be furnished by an expedition comprising at least a botanist, a zoologist, and an ornithologist.

Members of the Expedition wish to express their great thanks to the Trustees of the Percy Sladen Memorial fund for their assistance and to Professor H. Munro Fox, M.A., M.Sc., and to Professor W. Stiles, F.R.S., for leave of absence from Birmingham University and for assistance in many ways. Our great thanks are also due to Professor F. S. Bodenheimer of the Hebrew University, Jerusalem, and in particular to Dr. G. Mer, of the Malaria station, Rosh Pinna, for the great help given us during our stay in Palestine. Finally, we must gratefully acknowledge the many courtesies of the resident engineers at Huleh.

N.B. Figs. 1, 3 and 9 were published in "Nature", May 23, 1936, and acknowledgment is expressed for permission to reproduce them.

FIG. 1. LAKE HULEH FROM YESUD HAMALLA. ARAB WITH BUNDLES OF PAPYRUS

FIG. 2. LAKE HULEH FROM N.W., SHOWING REEDS ENCROACHING ON W. SIDE, AND BAND OF WATER-LILIES

FIG. 3. PART OF PAPYRUS SWAMP ("DRY AREA")

FIG. 4. POOLS OF WATER LILIES ON N.E. SIDE OF SWAMP. MAIN SWAMP IN BACKGROUND

FIG. 5. EDGE OF PAPYRUS SWAMP, PREPARING THE "RAFTS" FOR THE USE OF THE EXPEDITION

FIG. 6. LOADING DRIED PAPYRUS ON TO LORRY, MELAHA

FIG. 7. LAKE HULEH. SHORE SCENE

FIG. 8. LAKE HULEH. SHORE SCENE

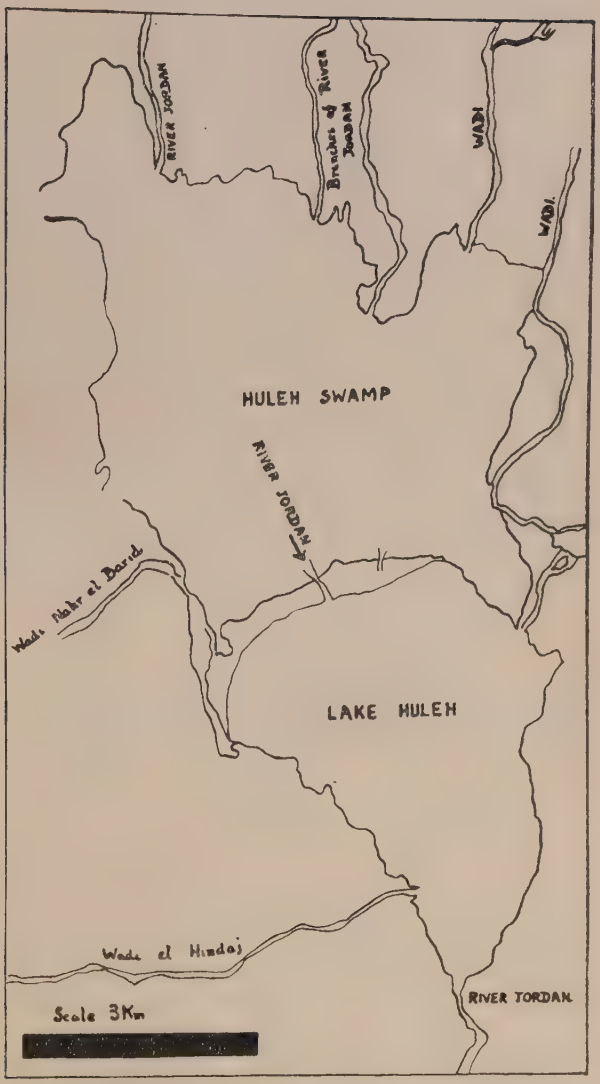


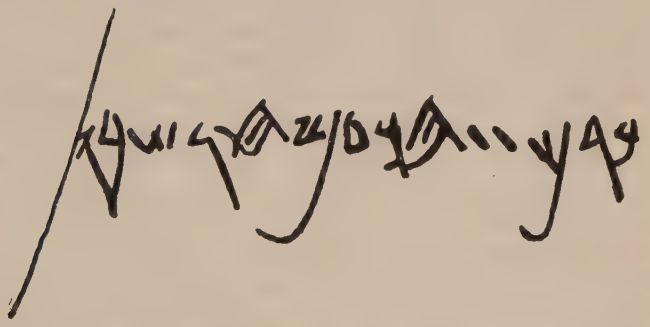
FIG. 9 MAP OF HULEH AND SURROUNDING AREA

Ostracon C 1101 of Samaria

By W. F. Albright
(Johns Hopkins University, Baltimore)

THE remarkable discovery of inscribed potsherds at Lachish has encouraged us to hope for more such additions to our stock of epigraphic material from Israel and Judah. It also gives us renewed incentive to study previously excavated ostraca, in order to utilize them to the fullest extent.

While the recent excavations at Samaria under Mr. Crowfoot's direction were disappointing in one respect, in not yielding numerous or important Hebrew inscriptions, some inscribed objects were found, especially in the season of 1932. The longest of these documents is ostracon C 1101, which was promptly published by Dr. Sukenik in the QUARTERLY STATEMENT for July, 1933 (pp. 152-4 and pl. III).[1] Dr. Sukenik was also so kind as to give the writer an excellent photographic print of the published cut.



At least two-thirds of the ostracon is preserved, and probably more, as we shall see. The third line seems to be complete. Every letter of the fragment is scratched clearly. However, neither the first editor nor any subsequent student has been able to give any convincing translation for a single line, let alone the whole text. The editor's scientific conscience

1. See also the discussion by Diringer, *Le iscrizioni antico-ebraiche palestinesi* (Florence, 1934), pp. 71-2.

has even led him to propose five alternative renderings for line 3.

We propose three changes, two in reading and one in interpretation, which will give a sound basis for a connected interpretation. To illustrate the changes in reading, we give a facsimile hand-copy of the second line, from which the reader will see that the third letter from the last one preserved is certainly *qôf*, and that the fourth letter before the latter is a characteristic *pê*, written over an oblique stroke, presumably intended to form part of some other letter, such as *rêsh*. We interpret the ostracon as a private letter, and translate :

1. (O) Baruch, greet[ings] !
2. (O) Baruch, now pay attention and [give X son of]
3. Imnah barley, 13 (measures).

In transcribed Hebrew this would be (disregarding spirated stops, which were not yet so pronounced).

1. *Bārûk shāl*[*óm*].
2. *Bārûk, happáʿam haqshēb we-*[*nātattá* (*we-tēn*) *le-pelônî bēn*]
3. *Yimnā śeʿōrîm* 13.

We consider this letter as an order to an underling (presumably a slave) to deliver thirteen measures of barley to the bearer, whose patronymic is preserved. The name *Yimnā* (A.V., Imnah) is an abbreviated form (hypocoristicon) of a name **Yimna'ēl*, or possibly **Yimneyāhū*, which probably meant originally "Let El (Yahweh) decree (my, his) fate."[1] The absence of an elaborate salutation, such as is always found at the beginning of the Lachish letters, is naturally to be explained as due to the insignificance of the addressee, as well as possibly to the fact that the document is in the nature of a

1. This meaning of the verb has been preserved in two late biblical passages, both archaizing, Isa. 65 : 12 and Ps. 147 : 4. In the same chapter of Isaiah we have a reference to the personified *Menî*, "Fate," which corresponds, as long since recognised, to Arab. *Manautu*, later *al-Manât*, god of fate, and to *manîyah*, "fate." The supposed Assyrian parallel *manîtu, minîtu*, "fate," is non-existent ; see Meissner, *Archiv für Orientforschung*. VI, 108, against Langdon, *Journal of the Royal Asiatic Society*, 1930, 21 ff. For the vocalic ending of *Yimnâ* see *Journal of Biblical Literature*, XLVI, 163 ; for the original jussive meaning of verbs in theophorous compounds see *ibid.*, LIV, 198, n. 84.

cheque. *Hap-paᶜam*, literally, "this time," is common in pre-exilic Hebrew prose. Instead of *haqshēb* (singular) we could read *haqshîbū* (plural). The name *Yımnā* is also found as that of a clan of Asher, mentioned three times, so that the reading is certain. Since a Hebrew patronymic often was a true family name, referring to the clan origin of a man, the person to whom the barley was to be delivered, may have been an Asherite. *Yımnā* also occurs in a late passage (II Chronicles xxxi. 14) as the name of a Levite, father of Kore, who lived under Hezekiah about 700 B.C.

What is the date of this document? The script points clearly to a date in the eighth century. Before analysing the forms of letters, we must stress the fact that there was nearly always a marked difference between a lapidary and a cursive hand in any period. The lapidary hand is nearly always a stiff imitation of the cursive hand of an earlier period. Most recent attempts to draw up a chronological table of Phoenician or Hebrew epigraphy have been vitiated by failure to recognise this fact. Rhys Carpenter's recent effort to lower the age of the adoption of the Greek alphabet to the second half of the eighth century[1] also suffers from failure to understand this principle; in the writer's opinion, the transference of the Phoenician alphabet to the Greeks took place somewhere in the ninth century.

The outstanding epigraphic characteristic of our ostracon is that certain letters, such as *lámed*, *mêm*, and *nûn*, have abnormally long shafts or stems. From the Reisner ostraca of Samaria down to the Siloam inscription we have extremely long *lámeds*; one also occurs on an unpublished vase-inscription of the eighth century from Tell en-Nasbeh. Neither lapidary texts (seals) nor ostraca show the long *lámed* after 700 B.C., so far as our present material goes. There is no parallel for the

1. *American Journal of Archaeology*, XXXVII (1933), 8-29. C. W. Blegen (*ibid.*, XXXVIII, 26 ff.) has answered Carpenter effectively from the Greek point of view, with the assistance of a new group of some twenty archaic Greek inscriptions incised on geometric sherds of the ninth-eighth century B.C.

abnormally long *mêm* and *nûn*, though both the Reisner ostraca and the Siloam inscription show a slight tendency in that direction, a tendency which later disappears. The *kaf* and the *lámed* show relatively late forms, which became common in the seventh century; the *mêm*, on the other hand, shows two early forms and one (line 2) which stands at the beginning of the evolution which reached its climax in the seventh century. The Siloam inscription (*c.* 700 B.C.) reflects an earlier cursive stage, and must be used with caution. If we could date the Reisner ostraca to the reign of Ahab, as was supposed by all scholars, we might even go back as far as the end of the ninth century for our ostracon. Unfortunately, the excavations of Crowfoot and Sukenik have thrown doubt on this dating, and have made a date in the second half of the ninth century (under Jehu or one of his successors) equally probable, while the epigraphic indications hardly favour so early a date as the time of Ahab. Our ostracon must, accordingly, be dated still later, somewhere in the eighth century.

The pottery will help to fix the date in the first half of the eighth century (or at the latest, before the fall of Samaria) The ostracon is scraped on the outside of a bowl belonging to the type which the writer has termed "semi-continuously wheel-burnished." This kind of burnishing on both inside and outside of a vessel died out well before the end of the eighth century, probably before the middle; it is very common all over Palestine during the ninth and early eighth century, though the burnishing is more sketchily applied, as a rule, in the south. We may add that the recent excavations at Samaria have yielded groups of a pottery which is almost identical with the characteristic seventh century ware of Judah, so there can be no reasonable likelihood of an appreciable lag in the north, as compared with the south. Moreover, in the writer's work at Bethel (1934), he found sherds of "Samaria ware," to which class our fragment belongs, in the earlier deposits from Iron II, never in the middle and late ones (from the eighth-seventh and seventh-sixth centuries, respectively).

This ostracon helps to correct the tendency to exaggerate the difference between the Hebrew used in Israel and Judah in the period of the Monarchy. Every word is perfect Biblical Hebrew, so far as the consonants go. The fragment of a stela found at Samaria in 1933, which contains one single word, probably the relative pronoun *ashér*, also points in the same direction. The most important difference between the two dialects were phonological and morphological, such as the rule that diphthongs were contracted in the north, uncontracted in the south (in general),[1] and that *shānā*, " year " (for **shánătu*), appears as *shăt* (for **shăttu*) in the north.

Thanks to the epigraphic discoveries in Palestine and Syria, we are on the way to a solution of many unsolved problems in historical Hebrew grammar. When all this material has been published and studied, it will provide an entirely new linguistic basis for Old Testament criticism.

1. This rule was set up some years ago by the writer and has been accepted by H. L. Ginsberg, *Bulletin of the Jewish Palestine Exploration Society*, III. (1935), 79. The latter points out that the supposed exception *ym*, " day," in the inscriptions from Judah is not really one at all, since this word must be vocalised *yām* (not *yăm* !), whence the plural forms *yāmîm* and *yemê*. Nöldeke had already shown in 1910 (*Neue Beiträge zur semitischen Sprachwissenschaft*, pp. 133-5) that the Semitic word for " day " was originally biliteral, *yăm*, whence Hebrew tone-long *yām*. Conclusive proof comes now from an unexpected quarter. In 1921 Thureau-Dangin published six additional Amarna tablets from the Louvre collections (*Revue d'Assyriologie*, XIX, 91 ff.). In No. 1, lines 14, 16 we read twice *tumâl šalsam(i)* = Heb. *etmôl shilshôm*, " yesterday and the third day." We also have in other passages in the Amarna Tablets the adverb *agam(i)*, " today," recognised by Thureau-Dangin, and *ayam(i)*, " what day, when," hitherto unrecognised. All these words are formed with *yam*, " day," just as classical Hebrew *shilshôm* and Accadian *šalšûmi*, *šaššûmi* are formed with *yôm*, *ûmu*, both for **yaum*, " day."

Discoveries at Auja Hafia

By Dunscombe Colt

The first Archæological Talk broadcast in Palestine at 7 p.m. on Monday, April 6, 1936.

I AM going to talk to you about the papyrus which we were lucky enough to discover this winter at Auja el Hafia.

In these days of increasing motor travel between Egypt and Palestine, Auja el Hafia is known to most people only as a police post and frontier control station. Few realise when they are stopped, coming through, by the police that history is repeating itself and that as far back as the third century B.C. people were probably held and questioned in a similar manner.

Before I tell you about the papyrus, I should like to say a few words about the site and its history.

The history of the site may, I think, be somewhat as follows:

First a small outpost and trading centre; this in course of time expanded and occupied the whole top of the hill. In Roman times a large fort was erected which occupied most of the top of the hill, this was provided with corner towers and a great gate in the southern wall and a smaller gate in the east wall, to which latter a staircase led up the hill. This building must have been most imposing, rising sheer from the edge of the hill to the height of some 12 metres or more; built of light honey-coloured limestone it would have been visible from a great distance.

This fort as originally built contained few internal rooms and could not have sheltered many people in time of danger. Probably the garrison was never a large one but more in the nature of a police force. In Christian times as the population and security of the country increased, and with it the power of the Church, the influence of the military waned, and the defences of the fort deteriorated. This change is shown by the reconstruction of the north end of the fort so as to allow space for a church. In the south part the open space was much lessened by the addition of many rooms. In fact the decay of the fort had

gone so far, that the entrance to one of the towers was walled up and a room constructed in front of it. This took place probably about the beginning of the sixth century A.D. At about the same time, a large church, chapel and adjacent rooms were built on a small knoll near the hill. A great deal of money must have been spent on the decoration of the north church, for it was paved with white marble, inlaid porphyry, slate and yellow limestone. The chancel was surrounded with carved marble screens, the walls covered with white plaster painted with designs in red, black and yellow, so the church must have presented a very fine picture. By the beginning of the seventh century prosperity was on the wane, and the arrival of the Arabs in 634, at first produced little change, but the end was not very far off, the population gradually dwindled and at length the fort was only inhabited by a few squatters. As late as the thirteenth century there were still some people left as we have found some of their pottery. From that time on, and until the Turkish authorities in 1913 decided to make Auja a police post, the ruins were deserted except for wandering bedu.

Our work this past winter has been confined entirely to the clearance of the fort and church on the top of the hill and the isolated church and its complex to the south. Our great discovery has been the finding of the papyrus. This was found in two places, the first and smaller lot in a room near the south church, and the rest in a room by the north church.

Papyrus is called after the reed from which the writing material is made. The reed is very common in Egypt and possibly was also grown anciently in Palestine. The writing material is made by splitting the reed into very thin sections, these are then glued together in such a way, that the grain runs horizontally on one side, and vertically on the other. Papyrus was usually made in long rolls, but in later times it also occurs in square pages in which case it was bound just as our books are nowadays. That found at Auja is in both forms but the rolls predominate, they are in varying sizes, some being as long as a meter and some only a few centimetres. When dry,

papyrus is very brittle and easily breaks into small fragments, when slightly damp it is pliable and can be handled with comparative ease, consequently it must be treated with great care. Had it been found nicely stored away in cupboards, we would have had little trouble, but under the conditions in which it was discovered, it was very difficult to extricate it at all. In both cases it was found near the floor level of rooms which had been abandoned and had become depositories for rubbish. It was probably placed there in Arab times when the orderly administration of the district had reached such a state as to render public or private archives of no use. It was mixed up with straw, rags, animal bones, broken pottery, and other house refuse. Some of the rolls had partially rotted, most had been eaten by mice, ants and worms, all of which made the unrolling anything but easy. In one of the rooms from which the papyrus was recovered, was found a child's discarded doll ; it had no arms or legs and the clothes were in a very ragged condition, but it still retained its carved ivory head. In the refuse of the same room was the mummified body of a field mouse ; this had probably fed many times on the papyrus.

Now for the papyrus itself. This falls into two groups, that written in Greek and that in Arabic. Most of it is in poor condition and consequently is difficult to read.

Dr. L. A. Mayer of the Hebrew University is working on the Arabic documents and while nothing is yet final, something can be said about them. One group of five documents are written in both Arabic and Greek, the Arabic part being first. They are all more or less identical and concern the payment of bimonthly allowances. These were to be paid both in coin and in kind and the orders were issued in the first month of every two months. They were from the Arab governor of the province to the people of Nusar in the district of Khalusa. Whether Nusar is the Arabic name of Auja or merely means the name of a tribe living in that district is uncertain, but, at any rate, these allowances were probably a form of tribute paid to the Arab overlords. One interesting point is the form of the name

Khalusa which is much more like the old Greek name of the city, Elusa, than the present name Khalasa. Also the fact of its being called "the district of Khalusa" rather than that of Gaza, leads one to wonder if Khalusa was not at that period more important than Gaza. These tributes were to be paid to a certain Zaid, who was possibly the local tax collector. The Greek part of each document is merely a translation of the Arabic above. These bear the date of the 54th and 55th year of the Hejira, A.D. 675 to 676, and are the earliest dated Arabic inscriptions in Palestine.

Another of the documents contains two separate undated letters, both on the same sheet, written at different times to the same person. This would indicate that they are not the original letters, but copies of them made for the official town archives. The name of the official to whom they were written was one Yazid Ibn Qaid. The larger one enjoins upon Yasid Ibn Qaid that the people of Nusar are under the Protection of Allah. This protection was accorded to all non-Moslem Monotheists who paid the Jizya, or poll tax. It is interesting to think, reading between the lines, that very probably rumours of some small trouble or discord had reached the ears of a higher official, who sent this reminder to Yazid, possibly the district officer, that he should protect the people of Nusar as they had paid for it.

The shorter letter is a reminder about some matters concerning a village of which Yazid is apparently the chief.

The Greek documents are very much more extensive and consequently more varied. Dr. McCown of the American School has been kind enough to study some of these and has given me certain facts. One of the largest pieces was written during the reign of the Byzantine Emperor Justin II. 565 to 578 and bears his name. It is a legal document and is full of such phrases as "The party of the first part and the party of the second part." It is the result of a legal battle between grandchildren over the inheritance of their grandfather. The property is described at length and appears to be in some town, also the decision is rendered and both parties are informed how

they are to use the property. The name of the town is given in the beginning, but as luck would have it a few letters only remain, some insect having eaten the rest of them.

One roll is curiously interesting. It is a letter to a person whose name is missing, instructing him to choose a guide from the people of Nusar. This guide is to conduct a man to " The Sacred Mountain " and ends up with the phrase " for he has the price." Just where the Sacred Mountain was is uncertain ; it might have been Mount Sinai or Jebel Harun in Trans-jordania. At any rate the letter ended with an assurance that the pilgrim was in a position to pay and so the guide need have no fear of not getting his money. There are also receipts for money, taxes, etc., which contain many personal signatures, which like many modern ones are illegible.

Among the religious documents is a fragment from a story of St. George describing his resurrection. It tells how the Lord came in thunder and lightning and said " George, arise," but apparently St. George would not arise and had to be told three separate times. Unfortunately, there is not much of this story, but by more prolonged study we may get further details.

Of much human interest are several pages of what can best be described as a crib. This is written in both Latin and Greek and shows the mental efforts of some poor scholar who was trying to master the fourth book of the *Æneid*. His knowledge of Latin was pitifully meagre and whenever he came to a word he did not know he copied it down in Latin on one side of the page and its equivalent in Greek opposite. In fact so little Latin did he know that many times he had to copy not only single words, but whole sentences. It was from these sentences that the clue was obtained which told us what book he was reading.

Selected Pottery from Beth Shan (Roman Date)

By Howard Comfort and F. O. Waagé

THE vases herewith figured were found in the excavations of the University Museum (Philadelphia) at Beth Shan, and are now in the Museum.[1]

Fig. 1 (29-102-547) has already been incidentally published by Mr. Fitzgerald,[2] while Figs. 2 and 3 are here shown for the first time. All are Samian ware, *i.e.*, products of the island of Samos, which has been found as far west as Italy, as far east as Olbia on the Black Sea, and as far south as Anibeh in Nubia.[3] The first two are stamped in the centre with rosette devices; the centre of the third is missing. Fig. 1 has not been exactly matched at other sites where Samian ware has been found but it is not far removed from a Samian pot published by Knipowitsch, *Untersuchungen zur Keramik.....des Schwarzes Meeres*, Pl. I 8, and is related to "Pergamene" shapes illustrated *ibid.*, Pl. I 12b, II 29, and by Fisher, *Harvard Excavations at Samaria*, I, p. 305, Fig. 185, nos. 5a-c, and to one at Tschandarli.[4] Although our vase is smaller than any of those figured and is different in its proportions, and although it shows other significant variations, it is interesting to note that Löschcke's and Knipowitsch's specimens are Augustan or Tiberian, that they are admittedly strongly influenced from Italy, and that they are of Hellenistic origin (Knipowitsch suggests Pergamum). Our vase may be a Samian version of the same influences, with the addition of an ornament on the vertical rim also imitated

1. We are indebted to Mr. Gerald Fitzgerald, the excavator, and to Mr. H. H. F. Jayne, Director of the Museum for permission and other courtesies in facilitating these notes.

2. *Beth Shan* III, Plate XXXIV. 43.

3. For references to publications, see Waagé, *Hesperia* II (1933), p. 291, n. 3 and *Antioch-on-the-Orontes* I, p. 72, n. 35. The pot from Nubia is on display in the Nubian Room of the University Museum; it is given passing illustration in Woolley and Randall-MacIver, *Karanog* IV, Pl. 93, No. 8874, Grave 701 and Pl. 106, Form lxi.

4. Löschcke, *Ath. Mitt.* XXXVII (1912), Pl. XXVIII 18.

from post-Augustan *sigillata*.[1] That it is Samian and not Pergamene is proved by the clay and glaze ; conformable are its low foot and rosette stamp, which latter suggests correspondences with other chronological criteria.[2]

Fig. 2 (29-102-544) stands between Knipowitsch, Pl. I 5 and 6 ; it has the former's rim, the latter's groove above the foot, and a rosette signature less debased than the latter. The date is about the same as that of Fig. 1 or a trifle earlier.

Fig. 3 (29-102-580) has no close parallels in any ware, although the rim resembles Knipowitsch, Pl. II 30, a deep Samian bowl of her later Group D. This shallow little bowl may be an earlier version, for it must be contemporary with Figs. 1 and 2. Other Hellenistic ware is illustrated by Fitzgerald, *op. cit.*, and by Waagé in *Antioch* I.

On Italian made *sigillata* the following signatures appear : *Sex(ti) Anni*, *Camur(i)*, *Camuri*, *P. Cl(odi) Pr(oculi)*, *P. Cor(neli)*,[3] *Gavi*, *L.S.M.*[4] These signatures are shown with their shapes in Fig. 4[5] The contour of *Sex. Anni* is Haltern 1a, very close to the variant in Löschcke, *Haltern*, p. 139, Fig. 1. 1 ;[6] *Camuri* is an interesting use of a quarter-round moulding between the rim and bottom on genuine Arretine work ;[7] *P. Corneli* is close to Haltern Type 2 ;[8] and the other shapes may gain significance through the publication of future comparative material. The signatures of Camurius (twice), Cornelius and Gavius (the

1. This particular leaf-ornament itself is not Italian, however, Roman potters favoured small human and animal figures.

2. Knipowitsch, p. 21.

3. Mr. Fitzgerald writes that a second instance of this stamp has subsequently been found in the Bath Shan cemetery.

4. These are noted in *Beth Shan* III, pp. 47 *f* and Pl. XXXIV ; in some cases inscriptions or drawings are here revised. The numbers are 29-102-561, 559, 545, 553, 568, 555, 556 respectively.

5. The shape of *L.S.M.* (Pl. II, fig. 4) is precisely like that shown by Comfort, *Memoirs of the American Academy in Rome* VII (1929), p. 209, No. 130, by the same potter, but its dimensions are a trifle smaller.

6. The name of Sex. Annius appears at the same site, p. 168.

7. Earlier forms of this moulding appear at Haltern, *ibid.*, p. 143, and on a plate by C. Sentius in the Columbia University Collecton (unpublished).

8. *Ibid.*, p. 143, Fig. 2. 2 and 3 ; the name occurs once, p. 174.

last in a graecized form) appear at Corinth ; Camurius and Sex. Annius (each twice) and P. Clodius Proculus (thrice) appear at Athens ;[1] at Alexandria Botti reports Camurius (four times) and Gavius ;[2] at Olbia Camurius and Cornelius occur once each ;[3] Camurius is also at Ephesus ;[4] and Sex. Anni is the only genuine Arretine signature at Samaria.[5] *L.S.M.* is thus the only Roman signature at Beth Shan for which a parallel from elsewhere in the Hellenistic East has not already been indicated, and in several cases the number of parallels is impressive.

From an examination of names and shapes it is evident that ceramic importation from Italy to Beth Shan falls between the Haltern period (10 B.C.–9 A.D.) and 30-50 A.D.[6] Actually, the whole period of sixty years is too long, and could probably be reduced by a decade at each end. The interesting fact is, however, that this period coincides at least in part with the apparent period of importation from Samos. Nor is this phenomenon peculiar to Beth Shan ; at Olbia, Corinth,[7] Samaria, Alexandria, Pompeii-Herculaneum,[8] Antioch,[9] Athens, Priene,[10] Ephesus, and elsewhere both Arretine and Samian ware have been found at the same site and in some cases even in the same deposit.

Finally, we figure two other non-Roman fragments. Fig 5 (29-102-554) is the bottom of a " Pergamene " concave-sided cup, one of the most common shapes of the ware. A fine series of five nearly complete specimens which illustrate the evolution

1. Koumanoudes, *Arch. Eph.*, 1862, Cols. 10-16 ; Oxé. *Ath. Mitt.* LII (1927), p. 221.

2. *Bull. de la Soc. archéol. d'Alexandrie* I. (1898). p. 10.

3. Knipowitsch, p. 11.

4. *Ephesos* I. p. 168.

5. *Samaria* I, p. 304 and Pl. 68h.

6. P. Clodius Proculus is assigned to approximately the middle of the first century A.D. by Oxé, *loc. cit.*

7. Comfort, *A.J.A.* XXXIII (1929), pp. 484-501, with the commentary of Waagé, *Hesperia* I, *loc. cit.*

8. Waagé, *ibid.*

9. A few unpublished sherds of both wares.

10. Comparatively little Arretine.

of the shape were found at Beth Shan and are illustrated in *Antioch*, I, p. 72, Fig. 5. Similar cups which bear potters' stamps are known from Antioch, Athens, Ephesus and Tarsus, and on that from Ephesus the same name occurs, κέρδος.[1] But this fragment is unique in that the letters are represented left to right although the name is to be read from right to left ; the reverse process, of course, was that employed by the maker of the die. Occasionally the Greek stamps read backward, but we know of no other case in which the direction of the letters does not conform. The frame around the stamp is typically " Pergamene." On this ware κέρδος appears at Ephesus and at Antioch (thrice), and on Samian at Alexandria (uncertain ; possibly " Pergamene "), Ephesus (twice) and Olbia.

Fig. 6 (29-102-578) is another " Pergamene " fragment whose shape is known from a stamped plate found at the Samian Heraeum.[2] A piece from a very similar rim at Beth Shan is listed under the same number but comes from a different pot.

1. *Ephesos* I, p. 175.
2. Technau, *Ath. Mitt.* LIV (1929), p. 49, Fig. 38.

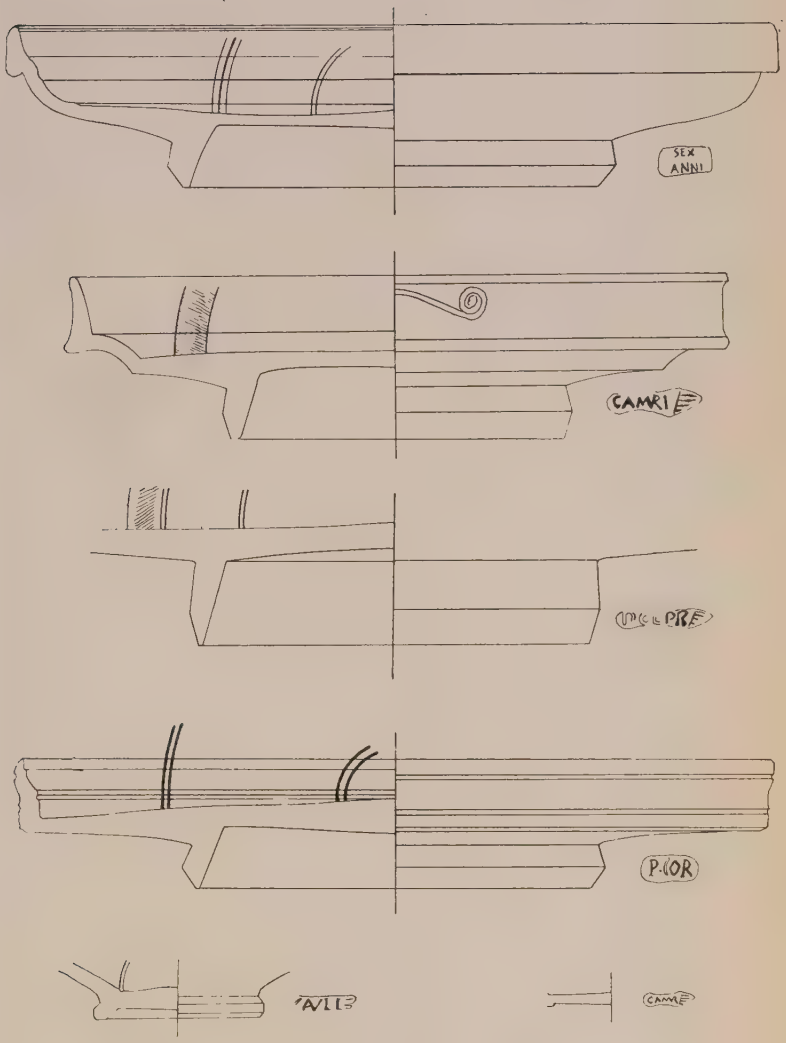

SEX
ANNI
CAMRI
PRE
POR

Fig. 1.

Fig. 2.

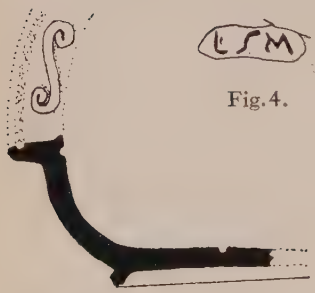


Fig. 4.

Fig. 3.

Fig. 6.

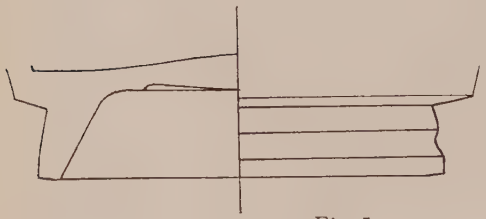


Fig. 5.

A Visit to the Mat Makers of Huleh

By Theodore Larsson

THE inhabitants of the Huleh district and for that matter, of all the Ghor region, have a pronounced negroid element. Two explanations are given for this: either that these people are the descendants of a settlement from the Sudan, or of negro slaves purchased at Mecca by pilgrims, and later retailed by them at Maan in Transjordan. The language, I was surprised to find was very similar to the Egyptian Arabic, the G's being always pronounced hard and words were used unknown in other parts of Palestine.

In one village, Salhieh, right on the banks of the Jordan, the only one in which I was able to see the making of the roof mats, a small crowd gathered round to watch me eat some grapes, I was asked what I was eating. "Grapes" I replied in Arabic. They however, did not appear in the least enlightened. Apparently they had never heard of them. This incident and the difference of language, made me feel what a secluded life they lead. They are obviously poor, but seem contented with their lot. They keep chickens, geese and buffaloes, and sow what arable land there is with wheat, Indian corn and millet, and some money is earned by those who act as guides in the duck shooting season. Bread, their staple food, is except for special occasions, made of millet (dura).

Ploughing in the Huleh region is rendered difficult by the fact that the whole area is infested with the grass, called *Injeel* in Palestine, and *Najeel* in Egypt. As it is very short it is practically of no use as pasture:[1] while its tough fibrous roots are not only difficult to loosen, but capable of starving out any other plants. The peasants maintain that it is capable of killing an olive tree. Almost the only use to which it can be put is to make lawns; it is evergreen except for a month or two in the winter, and needs comparatively little water.

1. The Couch grass, Cynodon Dactylon, is a troublesome weed, but considered valuable as fodder in the Sudan and other parts when better grasses cannot be found.

Fishing is carried on by means of the drag net, and the cast net, as at Tiberias. The lake is full of fish, they swarm unbelievably in the shallow swamps, even great cat fish (*barbour*) of 3 feet long and more, and I cannot understand why this easy means of livelihood is not exploited to a greater extent.

There is no pottery making, the pottery I saw in use was of the very attractive painted ware from Souriya, twenty kilometers away. The inhabitants of that village are said to be of Algerian descent, and to have brought their craft with them.

As is well known the chief industry of Huleh is the mat making. The people are proud of their craft, and enthusiastically show the processes of manufacture. The mats are of two distinct varieties, the fine woven mats used inside the huts and sometimes put round the walls for ornament, and the coarser kind used for making the hut itself. The weaving of the fine mats has been described by Mrs. Crowfoot ;[1] but she did not have opportunity to see the making of the coarse kind, and afterwards suggested to me that I should investigate this. The result of my enquiry is now given here.

Both the fine and coarse mats are made throughout, warp and weft, from the Papyrus reeds.[2] The gathering is done entirely by the men, who have to wade out into the thick swamps to get it. It is almost unbelievable how thick these swamps are, and, the Papyrus not being found near the edge, you have quite literally to cut your way through reeds and various other marsh plants until you come to where the papyrus abounds. Seen thus, in its natural state, growing in great masses, it is very beautiful.

The gathering of the plant is not without a certain element of danger. Wild pig are found even today, in fair numbers in the drier parts, and an old boar will often attack a human being on sight, escape being difficult, owing to the absence of trees or

1. Crowfoot. The Mat Looms of Huleh. (P.E.F. Q.S. Oct. 1934.) page 195.

2. Cyperus Papyrus,

any adequate cover. The natives also hold that a variety of poisonous water snake exists here, but this is discredited by Palestinian naturalists.

Once gathered, the plumes are lopped off, the butts trimmed, and the stalks are left in the sun for three or four days, and are then used for the weaving, while they are still fairly damp and quite green.

For the warp, which is the same in both kinds of mat, the stalks are split very finely with a knife by men and then twisted into a rope by women. The ropemaker sits on the ground, puts the ends of the strands under a stone, controls them by holding them with her toes and twists by rolling them between her hands.[1] For the weft in the fine mats the stalks are split to about one fifth of their original thickness, but the whole stem is used in the coarse variety.

The loom for the fine mats is made of silver poplar wood as is the frame for the coarse mats, and the same upper beam serves for either. Some of these beams are blackened by age, polished and deeply scored by the passage of the warp strings. I tried to buy one of them for the Folk Museum but wood must be scarce among these people for the owner would not sell it at any price.

When fine mats are to be woven the looms are set up out of doors at the sides of the huts and sometimes a rude shelter is built over them for protection from the sun, as in Plate II). But the work on the coarse mats is always carried on inside the huts, indeed the large "summer" hut shown on Plate I, Fig. 1, was wholly given up to it. I could not get a photograph inside, so I have made a drawing of the frame used. (See Pl. I Fig. 2). It will be seen from it that the guess made by Mrs. Crowfoot, in her discussion of these hut mats[2] was correct; they are made after the fashion of the Ainu mats, by twisting strings tied to stones. To begin the mat the binding strings, about 6 feet long, are hung over the warp beam and a stone

1. See Crowfoot, *op. cit.*, Plate I, Fig. 2.
2. Crowfoot. *op. cit.* page 198,

attached to either end. The weft, a complete papyrus stalk, cut off to the desired length, approximately six feet, is added by being simply placed along the beam. The binding strings are then crossed, that is, the stones are thrown from one side to the other, a simple twist being thus made. The end of the weft strand on the left side is then turned in, another stalk added on top of it, the strings are again crossed by throwing the stones, and the process continues. The mat comes to a finish when the binding strings are too short to be able to be crossed over, they then are firmly knotted.

The final state of the mats is shown on Plate I, Fig. 1. The one forming the roof of the hut shows the neat appearance of the edge on the left hand side of the mat, while on the right side the ends of the reeds have been merely trimmed off with a knife.

These mats are used only for the building of the reed huts, both walls and roof. In summer they are thinned down sometimes to a single thickness for the walls, while in winter in order to render them waterproof they are brought up to four or five. The roofs are seldom less than three or four layers thick, and in winter are often brought up to eight or ten. The design of the huts seemed to me very similar to that of Beduin tents, the main supports being of wood, the lesser ones of reeds.

The future of these poor Hulehites is rather uncertain. The whole area has been taken over by Jewish colonists who intend in the near future to drain it and convert it into useful arable land. What provision His Majesty's Government will make for them I cannot tell, but to transplant them to another similar region is impossible, as such a region does not exist in Palestine, and though these people are bound to benefit greatly by being transplanted to a healthier place, one cannot help feeling sorry that to all intents and purposes, Palestine, within the next few years, will lose one of its most picturesque and unique handicrafts.

NOTE BY G. M. CROWFOOT.

This note is added in the hope that it may usefully supplement Mr. Larsson's description of the mat making he was so fortunate

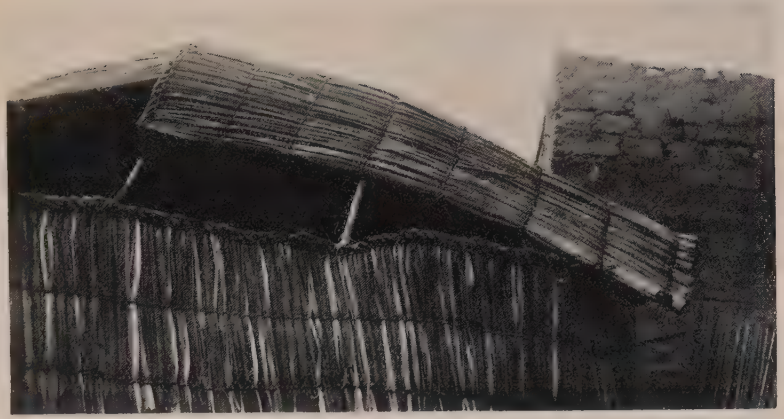


FIG. 1. "SUMMER" HUT

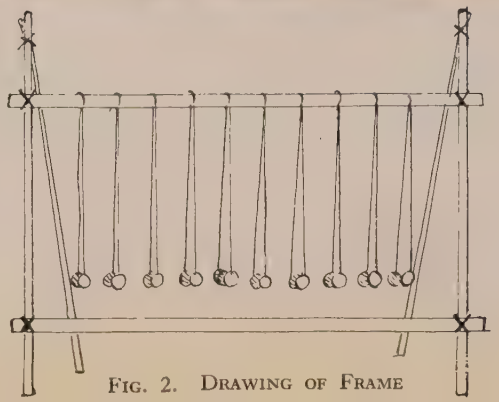
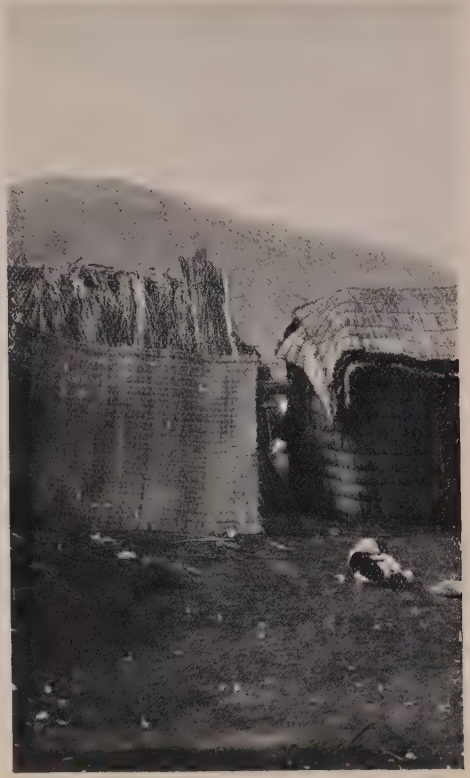


FIG. 2. DRAWING OF FRAME



FINE MAT ON LEFT, AND THE HUT MATS ON RIGHT

WEAVER MAKING A FINE MAT

as to witness. As I understand it, the procedure is as follows:

The mat is made from above downwards, the binding strings with the stone weights being thrown alternately over the beam so as to cross each other between each papyrus strand of the weft. It is not clear to me whether the mat hangs down during the work or is rolled round the beam, in which case the new strand would be placed above the beam.

The principle is that of the Ainu Mat Loom of which there is a model in the Bankfield Museum. Dr. Hodge considers it to be a more workable affair than the Huleh loom. In it the mat progresses upwards from a lower beam, the stones being slung alternately over the upper beam. The lower beam can revolve and the matting as finished is rolled round it so that a greater length can be achieved than is given by the height of the frame. Some of the Huleh hut mats are of considerable length (see Plate I) and to achieve this more string is probably added to the warps, and the mat rolled over the upper beam, which can be done although it does not revolve, or the people of Huleh may have some other simple device yet to be seen.

I had but half an hour at Huleh in which to make observations, Mr. Larsson perhaps half a day—we did our best in the time we had and we hope that other passers by the Lake side may be stimulated to further enquiries.

Correspondence

SIR,—In the Notes and News of the July number, you refer to Sir Leonard Woolley's book on Ur, and state that the identification of Hammurabi with Amraphel, is no longer universally accepted. So far as I am aware, it never has been so accepted. But "the Venus Tablets of Ammizaduga" by Langdon and Fotheringham, published in 1928, make it reasonably certain. This excellent piece of scholarship supplies an astronomical date for the reign of Hammurabi from B.C. 2067 to 2025.

Those of your readers who care to add the Genesis dates back to Abraham, on the basis of the Jericho date of B.C. 1400, will find that the patriarch was born in B.C. 2160, and entered Canaan in B.C. 2085. So Abraham's life in Canaan coincides with the reign of Hammurabi.

Those who do not want to look up the Genesis dates for the Patriarchs, will find the calculations set down in my book, *The Bible is True.*

The coincidence of the agreement of the Bible date for Abraham with the astronomical date for Hammurabi seems too remarkable to be ignored.—Yours very truly.

CHARLES MARSTON.

DEAR SIR,—I am much interested to hear of the possibility of another expedition to Lake Huleh. No doubt like the Percy Sladen Expedition which has recently done such interesting work there, it will include a botanist and a biologist, and I hear that pleas are being put in for an ornithologist. May I put in a plea for an anthropologist also ?

The people of Huleh and indeed of all the region of the Ghor are as Ethiopic in appearance as the flora and the fish fauna. It is usual to speak of them as descended from slaves, and many of them may be so, but the term '*abd* is in itself no more than a recognition of their negroid character, and no one really seems to know anything about them.

Dr. Mer, when very kindly sending me information in 1934 on the incidence of malaria in the district, which he and the workers at the Institute have done so much to alleviate, said how much he wished that some study could be made of the people and their crafts. Such a study, if carried out by an anthropologist with a knowledge of Arabic (one has in mind the class of work done by Evans Pritchard in the Sudan) would not only be productive of interesting knowledge about these marsh folk, but also be of use to the Government in resettling them after the swamps from which they draw their living are under the plough.—Yours truly,

GRACE M. CROWFOOT.

The Old House, Geldeston, Beccles, Suffolk.

Reviews and Notices

THERE has just appeared from the Chicago University Press and the Cambridge University Press, England, a book of much freshness and originality entitled *Culture and Conscience*, by Professors W. C. Graham and H. G. May. Professor Graham is the author of *The Prophets and Israel's Culture*, reviewed last year in this journal, while Professor May has contributed valuable archæological articles on Megiddo to this journal. The book will be reviewed later, but in the meantime the attention of readers interested in the Old Testament is drawn to what will be found to be an unusually stimulating approach to the development of Hebrew religion.

Dr. J. W. Jack, the author of a very useful monograph on the Ras Shamra Tablets, has contributed to the July issue of the *Expository Times* an important article entitled *The Bearing of Archæology on Old Testament Criticism* which should be read by all who are interested in the Old Testament. Admirable alike in its spirit and in the soundness of its scholarship, it shows how thoroughly constructive the best modern criticism can be, and that the truth of the Bible is something profounder than mere literal historical accuracy.

Much fresh light has accumulated in recent years on the history and culture of the Hittites, and our readers will welcome the two very important articles which we are publishing by Dr. E. O. Forrer, one of the foremost workers in this difficult field. His contributions will be found to throw a flood of light on the historical problems raised by the mentions of the Hittites in the Old Testament.

Crusader Castles. Part I—The Thesis. By T. E. LAWRENCE Golden Cockerel Press, 1936. £3 3*s*.

THIS essay was the result of Lawrence's examination (in 1905, 1906, and 1907) of numerous castles in England and France, and his visit to the castles in Palestine and Syria in

1909. The immediate publication of this thesis would have been welcomed; but we can be thankful it has at last been made available, and that it has, in addition, the marginal notes which Lawrence, in later years, made on his own copy. Many of these notes are illuminating and helpful, though a few do suggest "the world's imp," as Auda dubbed him.

In the thesis we are told that the earliest castles erected by the Crusaders in the East were merely the great, square towers so beloved by the Normans of this period. The massive tower of Safita (No. 36) will recall Falaise as well as many a Norman tower in England. The Crusaders, however, failed to induce the Eastern architects to adopt this simple and clumsy form of castle. Then in due course the two great Orders virtually undertook the castellation of the land; and Lawrence considers that, although the Templars adopted and followed Eastern ideas of military architecture, the Hospitallers undoubtedly drew their inspiration from the military architecture of contemporary France. It is to the Hospitallers that we owe such works as the huge castle of Margat, in all its magnificence of black basalt, and the mighty fortress of Crac des Chevaliers. Despite the constant intercommunication between Europe and the Least of all the Lands, Lawrence maintains that the development of European military architecture owed no debt to the Crusades. Indeed, the very reverse was the case, it was Europe which affected Syria. Independently, multiple castles arose in France and stone machicolation gradually replaced the wooden hourd. In Syria stone machicolations were forced on the military architect by the scarcity of wood; and the terrific *talus* of Crac and the batter of so many Crusader castle walls were a necessary precaution against a local enemy—earthquake.

It is probable that many readers, after studying the thesis and examining the numerous well reproduced photographs and plans, will agree with Lawrence's conclusions. Be that as it may, all students of the Crusades will value the illustrated and critical descriptions of so many castles in so small a compass. To give one example: the plan (from Rey), the photographs, and drawings of Saone—the finest castle of all—show how

admirably its original builders sited that grim fortress on a rough tongue of land, isolating it by a stupendous ditch cut through the living rock, and girdling the selected site with massive walls and towers. Nevertheless Saone failed to withstand Saladin, after Hattin.

Mr. Pirie Gordon's two maps, illustrating the intervisibility of the Crusader castles, are a most valuable addition to this work. Could they not have been bound in ? On page 21 we notice the term " berm " seems to be misused, whereas it is correctly employed on the next page ; and on page 39 Suheibeh is a misprint for Subeibe. It must also be recollected that the bibliography on page 11 was compiled in 1910, and today students would also require to consult the magnificently illustrated French works on the Syrian castles by van Berchem and Fatio, and by Dussaud and Deschamps.

In conclusion we should like to draw attention to Lawrence's frequent use of the term " keep." To call an early Norman castle (consisting of a single, massive, square tower) a " keep," is surely unnecessary. Further, to suggest that, during the times of the Crusades, the multiple castles were furnished with " keeps " is to put our modern and more developed ideas of defence into the minds of these early engineers.[1] Lawrence realised that the " keep " of an early medieval castle rarely if ever held out after the other works had fallen ; and on page 49 it is stated that " the capture of the outer and inner wards of a castle meant the surrender of the whole." Some so-called " keeps " did not even possess an independent water supply. A more suitable term to use would be " great tower." Such a tower certainly existed in Richard I.'s awe-inspiring castle, Château Gaillard (see No. 96) ; but this Donjon had no water supply, and it made no prolonged resistance when the castle fell to Philip in 1204.

All students of early military architecture are indebted to Lawrence's executors for making his thesis available, and to the

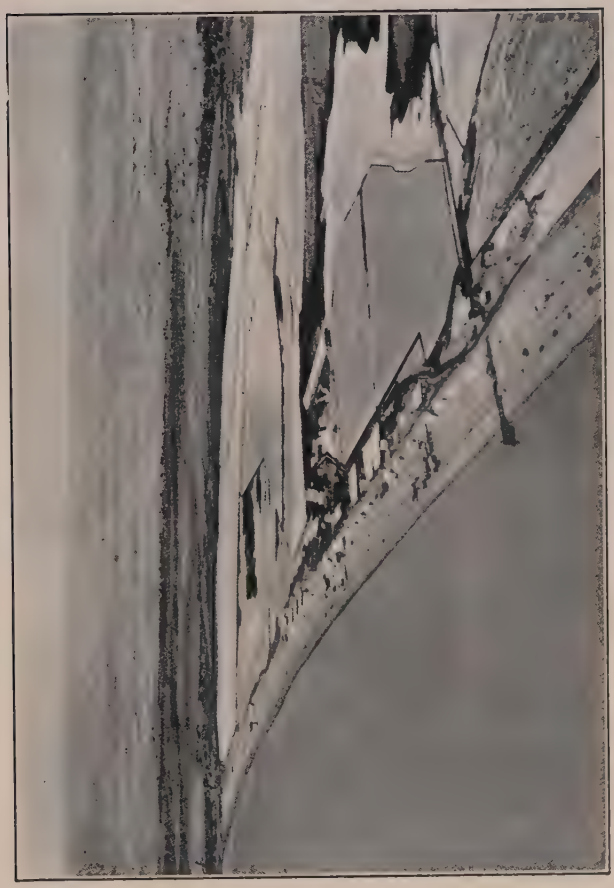
1 A *keep* is a work designed for a desperate defence, and it is prepared and expected to hold out until assistance arrives.

Golden Cockerel Press for the method of its presentation. We now look forward with impatience to the publication of Part II: The Letters. B.

The Dead Sea—A Storehouse of Chemicals. By M. A. Novomeysky, M.Inst.M.M.

This is a very interesting paper read last month at the fourteenth Annual Meeting of the *Institution of Chemical Engineers*. It is full of facts which all who are interested in this unique and historic Lake should appreciate. Thus "while it receives daily over 8,500,000 cubic metres of water its only method of discharge is by the vapours rising from its surface." "The average *annual* range between high and low sea-level is about 30 in." The chemical composition of the water is one of special interest to the writer as he is concerned with the extraction of the more valuable salts for commercial purposes. The ratio between the various salts remains practically constant: at depths of about 250 ft. and more from the surface the specific gravity remains constant at 1·235 to 1·236 since the water has here reached its saturation point and the temperature (below 175 ft.) is constant at 20.5°-21° C. At the depths mentioned above a litre of water contains 169 gr. of Magnesium Chloride, 87 gr. of Sodium Chloride (Common 'Salt'), 15 gr. of Potassium Chloride, 46 gr. of Calcium Chloride, and 7 gr. of Magnesium Bromide. It will be seen that the most valued salts—commercially—are the rarer ones. The potash is a little over 1% in the water. The Palestine Potash Co. Ltd. are especially concerned with the Potash and the Bromide. It is worth mentioning that it has been shown that the Bromides are derived from the various hot springs at Tiberias, the Yarmuk River and the Zerka Maïn (Callirhoe) and occur only in faint traces in Jordan water.

For some years experiments were made with a view of recovering potash by solar evaporation in shallow enamelled pans on the shores of the Dead Sea and finally, as a result of the methods described here in detail, a method was evolved which



PART OF THE EVAPORATING PANS AT N. END OF DEAD SEA
(By courtesy of the Institution of Chemical Engineers)

has led to the finished process now in daily use. Instead of the experimental enamelled pans, "large narrow shallow pans, having surfaces of from 7½ to 30 acres, were placed along the sea shore and some two miles to the north on both sides of the Jordan, and formed by earth dams 3 to 4 feet high and 4 to 5 feet wide in the case of the salt pans, and by timbered clay dams 2½ to 3 feet high and 2 to 2½ feet wide in the case of the carnallite pans which follow the contours of the land and cover an area of about 1,000 acres.

The water is drawn by electrically driven pumps through a steel pipe 30 in. in diameter, 2,500 feet long and drawing its supply from 175 feet under the surface. In the first pans much of the Sodium Chloride crystallizes out (90-95%), In the next two series of pans the Potash is obtained and the residual brine of 1·33 specific gravity, the Magnesium Chloride crystallizes out in large crystals. "The remaining fluid, the final brine is pumped into the Bromine Factory where Bromine is extracted by treatment with Chloride and steam."

The output now is 25,000 to 30,000 tons of Potash, and 1,000 to 1,200 tons of Bromine per annum. Since the flat land suitable for the construction of pans is very limited at the northern end of the Dead Sea, an extension was begun at the southern end where about 60 sq. kilometres of land is available "in order to bring ultimately the capacity of the plant to 100,000 tons of Potassium Chloride per annum." The whole paper consists of 24 pages, with maps, plans and tables, and will well repay the reader's careful study. E.W.G.M.

Historical Atlas of the Holy Land. By GEORGE ADAM SMITH, Kt., D.D., LL.D. Second edition. Hodder and Stoughton. 42*s*.

A new revised edition of this valuable Atlas, which was first published in 1915, supplies a much needed want, since the original edition has been out of print for a long time. It comprises the 60 maps of its predecessor, but these have been arranged in somewhat different order, an improvement enabling the historical maps to appear in their chronological sequence

without interruption by the subsidiary maps, e.g. *Geology, Vegetation, Economic*, etc. A notable omission is the *Notes to maps, with explanatory Bibliography* of the 1st. edition, but this is provided for in that indispensable parent of the Atlas, the author's celebrated *Historical Geography of the Holy Land* (now in its 25th edition) which contains an extensive Bibliography.

The revisions of the $\frac{1}{4}$ inch to a mile map are, essentially, mainly concerned with the modern developments, being the incorporation of details from the newly published sheets of the Government of Palestine Survey Department, notably the road communications. Among the Biblical sites, we note that Lachish is still identified with Tell el-Hesy, which may still indicate the Author's reserved opinion, though Tell ed-Duweir, now being excavated by the Wellcome Archaeological Research Expedition, is generally favoured nowadays, and Tell el-Hesy's identification is changed to Eglon.

Disappointment must be registered that the *Plan of Modern Jerusalem, illustrating Recent Discoveries* has not been brought up to date by the inclusion of the extensive excations of recent years on Ophel, the Tyropoeon Valley, the Third Wall, etc.

The maps are beautifully produced by Mr. John Bartholomew, and the Atlas, with its Chronological Tables, is indispensable to every serious teacher and student of Biblical history and the Historical Geography of the Holy Land. G.J.O.

The Old Testament: A Reinterpretation. By STANLEY A. COOK, Litt.D., F.B.A., Regius Professor of Hebrew in the University of Cambridge. S.P.C.K. 264 pp.

WE shall not say *finis coronat opus*, because we hope that many more books are yet to come from Professor Cook's pen. But, in a sense, this book represents the crown of many years of devoted and disinterested service to the cause of Old Testament studies. The book is not, as its title might seem to suggest, a reinterpretation of the Old Testament, but, as the author explains on pp. 214–5, a study of the development of Hebrew religion as a process of continual reinterpretation of religious experience, a

process which led from the Old Israel to the New Israel of the Epistle to the Romans. The general purpose of the book is best stated in the author's own words on p. 214: "At no time can men look into the future and read what shall be; but the principles of Divine Righteousness that rule in the old and new Israel throughout are of eternal validity. St. Paul looks ahead and sees certain possibilities (Rom. 10f.), and we of to-day have our own hopes and fears of the further course of history and religion. The youthful West is slowly discovering for itself and restating the real historical value of the Bible, and although its contents might seem to belong to ancient history, the process of reinterpreting them unites the past, the present and the future. The real history of the religion which we trace in the Bible began long before the first of its contents was written; and its history will continue so long as men continue to study and reinterpret the Bible. Nations may rise and fall, civilizations may grow up and vanish, but "Slowly the Bible of the Race is Writ."

In the first three chapters Professor Cook traces the growth of the Hebrew text and of its many versions, giving also a valuable sketch of the development of modern critical methods. His discussion of the limitations of "internal" (i.e., Biblical) evidence, is particularly valuable. He then turns to the external factors in the development of Hebrew culture, the geographical factor and the importance of the environment. In this last respect Professor Cook's qualifications as an expositor of the cultural history of the ancient East are too well known to need mention, and we could gladly have seen more space devoted to the subject of c. V., *Israel and the Nations*. We are then carried on to the religion and its fundamental conceptions in the next four chapters; the significance of the Prophetic movement is admirably discussed in c. X, and in c. XI we have a description of the profound changes which arose in the post-exilic period. The final chapter deals with the contrast between the "Old" Israel and the "New," and expounds the meaning of the idea of "reinterpretation." There is a valuable chronological summary, useful bibliographical notes, an index of biblical passages

(*O si sic omnes*), and an adequate general subject index. There are also two good maps.

It is clear that such a book will be of inestimable value to all Bible students and especially to teachers.

One of Professor Cook's characteristics is his acute discernment of the significance of apparently trivial details. An interesting example of this is his remark that "the national god of Edom is neither denounced in the Old Testament, nor even named," in contrast with the Old Testament attitude to Chemosh of Moab and Milcom of Ammon. A similar point is observed in the meaning of the name of Abraham's concubine, Keturah, "Incense," and the relations suggested with Arabia. One is reminded of Miss Freya Stark's study of the ancient incense routes of Arabia in her recent book *The Southern Gates of Arabia*. Examples might be multiplied. Chapter IX contains some extremely pertinent discussion of the difficulties inherent in the idea of Israel as a missionary people, carrying monotheism to the nations, "the ideal of a one and only Yahweh was not a simple one if different peoples were to be united in religion." In the same connection Professor Cook makes the important remark, "it is necessary to try and understand that . . . the separation of Judaism and Christianity had its roots in earlier problems of the nature of Yahweh."

Some may feel inclined to object to Professor Cook's statement on p. 188 "the prophets were not mystics," but there can be no disagreement with the subsequent words "Prophecy at its highest was not a psychological phenomenon with psychological criteria : it was the sanity of the prophets and not their manticism that made them such tremendous factors in human history."

The only criticism that might suggest itself is due to the great fulness and richness of Professor Cook's knowledge, from which arises an occasional tendency to obscure the main thread of the book with a wealth of illustrative detail, never, however, irrelevant, and always illuminating.

By this book Professor Cook has greatly increased the debt which all students of the Old Testament already owe to him.

S. H. H.

PALESTINE EXPLORATION FUND

ANNUAL REPORT

AND ACCOUNTS

WITH

LIST OF SUBSCRIPTIONS

Issued at End of 1936 [illegible]

FOR THE YEAR 1936

PALESTINE EXPLORATION FUND
2 HINDE STREET, MANCHESTER SQUARE, LONDON, W.1

THE PALESTINE EXPLORATION FUND was founded on 22nd June, 1865, for the purpose of conducting systematic and scientific research in the Holy Land.

It was established on the basis of the following rules:—

1. It was not to be a religious society. That is to say, it should be pledged not to advocate or attack any form of creed or doctrine.
2. It was not to adopt or to defend any side in controversial matters.
3. It was to be conducted on strictly scientific principles.

These rules have been jealously observed. The Society's organ, the QUARTERLY STATEMENT, is open to all opinions, while it records as facts only the actual discoveries and results of its exploring officers.

Although the Society is not a religious society, strictly so called, its work necessarily possesses unusual interest for Bible Students of all denominations, who find in the results obtained by exploration much that confirms and illustrates the historical truth of both the Old and New Testaments.

In the course of its existence, the Society, with limited funds at its disposal, has done an immense amount of work, and published the results in books, papers, maps, plans and photographs, primarily for the benefit of its subscribers, and for the advantage of students of the Sacred Scriptures.

PALESTINE EXPLORATION FUND

LIBRARY
Alma, Califor

ANNUAL REPORT FOR THE YEAR 1936

THE death of our Patron King George V on 20th January, 1936, was a great loss to the Fund. In early youth, the King had been a traveller in the Holy Land and was personally acquainted with our work out there and with some of our leading authorities. King Edward VIII was graciously pleased to accept the office of Patron in succession to his father, and His present Majesty, King George VI, has been pleased to continue the Patronage which we so much value.

By the death of Field-Marshal Viscount Allenby, the Fund has lost a very distinguished member of the General Committee. We have also to record with deep regret, the death of Lady Watson, a member of the General Committee, and Hon. Secretary of the Fund in Palestine since 1924. Lady Watson was always greatly interested in the Fund and spared no trouble to increase its membership and usefulness. Further loss was sustained by the death of Mr. James Glen, Hon. Treasurer for the Fund in Glasgow for over forty years.

Dr. E. W. G. Masterman, who had been for seventeen years Honorary Secretary of the Fund, resigned during the course of the year, in order to take charge of the C.M.S. hospital at Es Salt, in Transjordan. During his long period of office Dr. Masterman carried out, with great efficiency, his important duties, and his knowledge of Palestine was a very valuable asset on the Executive Committee. Whilst we naturally regret his absence, we are glad to know that the Rev. C. B. Mortlock, who is well known as a writer on subjects of interest to us, has kindly consented to take the vacant post.

A most important event to record for the year 1936 is the founding of the Archæological Survey of Palestine. This Survey, which will be the joint undertaking of the Fund and of the British School of Archæology in Jerusalem, will, it is hoped, be carried out systematically through a number of years. It will cover the whole of Palestine west of the Jordan, and will be taken up by

areas covered by the sheets of the official topographical survey on the scale of 1 : 100,000. This series of sheets will form a framework and an index, but the essential feature of the Archæological Survey will consist of a series of Memoirs, each dealing with one or more sheets, containing illustrated descriptions and histories of the archæological sites and material known to exist in the areas treated of.

The scheme has the approval of the Colonial Office and of the Government of Palestine. That Government, indeed, had intended to make a financial contribution towards the cost of carrying out the work ; but the expense of suppressing the unfortunate disturbances, which took place recently, has made a grant of money from that source unlikely for the present. But we have the goodwill of the Government and that is worth much to us.

The Archæological Survey will be generally controlled by a Joint Executive Committee, under the Chairmanship of the Bishop of Rochester, the members being three Honorary Officers from each of the Societies concerned, with the addition of a maximum of four co-opted members. The first meeting of the Joint Executive Committee took place on 20th November, 1936. At this meeting Mr. J. W. Crowfoot was elected Hon. Secretary of the Committee and Colonel S. F. Newcombe Hon. Treasurer.

The Director of the Survey, in Palestine, will be Mr. P. L. O Guy, who is the Director of the British School of Archæology.

It was decided at this meeting that the first area to be dealt with should be that covered by the Jaffa sheet ; that the principal object of the Survey should be the publication of a series of Memoirs describing the antiquities of Palestine ; that the Memoirs should be generally of the same character as the volumes published by the Royal Commission on Historical Monuments in Great Britain ; that Memoirs might also be published on special periods or categories of monuments and that free use might be made of illustrations already appearing in the fifty-year old volumes of the P.E.F. Survey of Western Palestine.

The Archæological Survey is thus properly launched. It is now necessary to touch upon the financial aspect of the undertaking. The Fund has promised to do its best to contribute £500

a year ; the British School contributing a like amount as part of the salary of the Director. So that we start with a thousand pounds a year. Little enough, but all that we can afford—perhaps rather more than we can comfortably afford. Such a small income will involve spreading the work over a long period of years, and it is clear that the work would greatly benefit if more money could be made available, for we have also to consider the cost of publication.

Although the Journal of the Fund first appeared in its new form, and under its new title, THE PALESTINE EXPLORATION QUARTERLY, in January, 1937, it is perhaps right to mention the change now, rather than wait for the expiration of another year. After much discussion it was decided by the Executive Committee of the Fund that it was desirable to increase the size of the Journal, so as to permit the use of a larger fount of type and to give more room for the reproduction of photographs. No break with tradition is intended. The old numbering will be carried on—this is now the sixty-ninth year. The old picture of Warren's excavations near the Temple walls is retained as a frontispiece. And a generous proportion of the available space will be devoted, as heretofore, to exploration and archæology and to the discussion of archæological and historical material. But it is hoped, at the same time, to widen somewhat the normal scope of the Journal, by the more frequent inclusion of articles dealing with the present changing history of the country, with folk-lore, with natural history, and, indeed, with everything which may serve to throw light upon the present, as well as the past, of the Holy Land.

The Executive Committee desire to acknowledge the assistance and advice which they have received, in making this change, from the Athenæum Press Ltd., and particularly from the Managing Director, Miss B. Buxton.

The following lectures were given at 2 Hinde Street during the year :

2nd January, *The Jews as Builders*, by Professor A. C. Dickie.

5th February, *The History of Writing*, by Professor S. H. Hooke.

26th March, *Handicrafts : Palestine*, by Mrs. Crowfoot.

30th April, *The Hebrew Monarchy and Archæological Discoveries*, by Mr. J. W. Crowfoot.

26th June, *Jericho: Further Excavations and Conclusions*, by Professor J. Garstang (on the occasion of the Annual General Meeting).

25th November, *The Houses of the Gods*, by Professor S. H. Hooke.

The Annual Exhibition of the Egypt Exploration Society took place in the P.E.F. rooms from 14th September to 3rd October.

The Executive Committee desire to thank the following members for consenting to act as Hon. Local Representatives.

Mrs. Wilson-Smith, for Bath.

Professor C. C. McCown, for California.

Rev. Professor John Mauchline, for Glasgow.

Mr. W. Patrick Mitchell (Hon. Local Treasurer), for Glasgow.

Contributions to the QUARTERLY STATEMENT for the year 1936 included the following: Reports on excavations—"Fourth Season's Work at Tell Duweir", by J. L. Starkey; "Discoveries at Auja Hafia", by Dunscombe Colt; "Note on the Tell Duweir Scarab", by Professor S. H. Hooke; "The Inscription of the Tell Duweir Bowl and Ewer", by Miss F. M. Stawell; "The Nabatæan Ware at Sbaita", by Mrs. Crowfoot; "The Cathedral at Bosra", by J. W. Crowfoot; "Selected Pottery from Beth Shan", by H. Comfort and F. H. Waage; "The Hittites in Palestine, I", by E. O. Forrer; "The American Settlement in Palestine", by A. M. Hyamson; "Jericho, Ai, and the Occupation of Mt. Ephraim", by Canon Phythian-Adams; "Some Aspects of the Pictorial Influence of the Jewish Temple", by Dr. Helen Rosenau; "The Samaritan Passover", by J. N. Schofield. To these, and to other contributors of notes and reviews, the Committee expresses thanks.

We have also to thank the Council of the British School of Archæology in Jerusalem for the gift of a collection of flints from the Natufian (Mesolithic of Palestine) levels of the cave known as the Mugharet el-Wad, Mt. Carmel.

C. F. CLOSE,
Chairman.

TREASURER'S REPORT FOR 1936

THE total income for the year was £1,571 17*s.* 3*d.* The amount from subscriptions, £775 14*s.* 9*d.*, shows an increase over the previous year, accounted for mainly by two life compositions of £26 5*s.*, otherwise normal losses have been replaced by new members.

Proceeds from the sale of books was again abnormal, and is due to royalties of £172 0*s.* 4*d.* received from the publisher of the second edition of *The Wilderness of Zin.*

The amount from rents, £441 16*s.* 4*d.*, includes a quarter's arrears from 1935.

Income Tax repayment from covenanted subscriptions is less than 1935 when claims were made, in some instances, for two years, but can be increased if more members will sign the covenant form which involves no liability.

In response to an appeal for funds for researches at Lake Huleh, we received £10 from the Zoological Society, and the promise of further contributions from other sources.

Expenditure on printing, £347, will in future be increased slightly owing to the altered form of the QUARTERLY.

It is gratifying to note that the debt incurred in 1933 in connection with the alterations and improvements of the Hinde Street premises, has been cleared off.

As explained by the Chairman in his report, the Fund will co-operate with the British School of Archæology in Jerusalem in carrying out the Archæological Survey of Palestine, and for this purpose we hope to provide £500 a year. The estimated surplus for 1937 is only about £300, and it is evident that increased membership and contributions are necessary to maintain this undertaking.

S. F. NEWCOMBE,
Hon. Treasurer.

PALESTINE EXPLORATION FUND

BALANCE SHEET 31st DECEMBER, 1936

Liabilities.	£ s. d.	£ s. d.
Capital :—		
Authorised—200 Shares of £1 each	200 0 0	
Issued—10 Shares of £1 each—not called		—
Creditors—For Printing and Current Expenses		74 13 7
Surplus of Assets over Liabilities :—		
(Excluding Donated Property) As per last Balance Sheet	1,272 15 8	
Add Surplus for the year	517 10 9	
		1,790 6 5
		£1,865 0 0

C. F. Close, *Chairman.*

S. F. Newcombe, *Hon. Treasurer.*

Assets.	£ s. d.	£ s. d.
Freehold Property—Donated—No. 2 Hinde Street (Estimated value £5,000)		—
Alterations and Improvements No. 2 Hinde Street		1,188 17 5
Museum, Library and Store-room, Fixtures, Fittings, Furniture, etc. (as per last Balance Sheet) ...	£190 9 6	
Additions during the year ...	15 10 3	
		205 19 9
Jewish Colonial Trust—Donated—50 Ordinary Shares of £1 each, fully paid		—
Stock of Publications, Maps, Books, Models, Lantern Slides, Library, Antiques, Furniture, etc.		—
Sundry Debtors		7 12 0
Subscriptions in Arrear		55 0 0
Cash :—		
At Bank	£392 0 0	
In Hand	15 10 10	
		407 10 10
		£1,865 0 0

Auditors' Report to the Members of the Palestine Exploration Fund.

We report that we have obtained all the information and explanations we have required as Auditors. We have examined and compared the above Balance Sheet and the Receipts and Payments Account shewn below, with the books and vouchers of the Fund, and, in our opinion, they are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Fund, according to the best of our information and the explanations given to us and as shewn by the books of the Fund.

19 Coleman Street,
London, E.C.2.
31st *March*, 1937.

Turquand, Youngs & Co.,
Chartered Accountants.

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1936

Receipts.	£	s.	d.
To Balance—31st December, 1935	229	7	1
Subscriptions and Donations, including Local Societies	775	14	9
Special Donation to Lake Huleh Researches	10	0	0
Sale of Publications :—			
Books £272 14 6			
Casts and Lantern Slides ... 56 11 10			
	329	6	4
Rent of Upper Floors and Basement, No. 2 Hinde Street	441	16	4
Income Tax Refund from Covenanted Subscriptions	12	17	10
Refund of cost of use of Palestine Exploration Fund Rooms for Exhibition	2	2	0
	£1,801	4	4

Payments.				£	s.	d.
By Printing, including Quarterly Statement, Annual Report, Postage and Despatch ...				297	0	0
Editor's fee				50	0	0
Books Purchased : For Library		14	17 0			
For Re-Sale		46	18 8			
				61	15	8
Casts, Lantern Slides and Photographs ...				23	9	8
Lectures and Meetings				2	1	3
Repairs and Maintenance				8	7	9
Furniture and Fixtures :—						
Museum Showcases, and Pictures				15	10	3
Salaries and Wages				423	18	11
Postage, Telephone and Transport ...				31	15	4
Fire Insurance				6	3	4
Rates and Taxes				10	18	9
Lighting and Heating				27	14	0
Advertising				5	13	6
Stationery and Sundries				16	12	8
Audit Fee				10	10	0
Cheque Books					16	6
Bank Loan :—						
Repayment of balance ...		400	0 0			
Interest thereon		1	5 11			
				401	5	11
Cash : At Bank		392	0 0			
In Hand		15	10 10			
				407	10	10
				£1,801	4	4

	£	s.	d.
Receipts for year, as shewn above	1,571	17	3
Less: Arrears of last year's subscriptions, etc., received during 1936	110	10	2
	1,461	7	1
Add: Arrears, etc., at 31st December, 1936, as shewn by Balance Sheet	62	12	0
	£1,523	19	1

	£	s.	d.
Payments for year, as shewn above	993	13	6
Less: Creditors at 31st December, 1935, paid during 1936	46	8	6
	947	5	0
Add: Creditors at 31st December, 1936, as shewn by Balance Sheet...	74	13	7
	1,021	18	7
Less: Capital Expenditure during 1936, as shewn by Balance Sheet	15	10	3
	1,006	8	4
To Balance, as shewn by Balance Sheet... ...	517	10	9
	£1,523	19	1

LIST OF SUBSCRIPTIONS AND DONATIONS

RECEIVED BETWEEN JANUARY 1ST AND DECEMBER 31ST, 1936 INCLUSIVE.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next Annual Report.

	£	s.	d.
Acland, H. Dyke, Esq. ...	1	1	0
Acutt, Miss A.	2	2	0
Adler, E. N., Esq.	0	10	6
Alford, Miss M.	1	1	0
Allenby, Field-Marshal Viscount	1	1	0
Armitage, Robert, Esq. ...	2	2	0
Ashmole, Prof. Bernard ...	1	1	0
Auffarth, F. B., Esq. ...	2	2	0
Bacon, F. D., Esq.	2	2	0
Balston, Miss F. C. ...	1	1	0
Barclay, Major R. L. ...	1	1	0
Barham, S. P., Esq. ...	1	1	0
Barnes, Prof. W. Emery ...	1	1	0
Barnett, Mrs. H. Lake ...	2	2	0
Barrois, Rev. Prof. A. G. ...	1	1	0
Barron, Mrs.	1	1	0
Bate, Miss D. M.	1	1	0
Battersby, Mrs. E.	1	1	0
Baxendell, J., Esq. ...	0	12	6
Bayley, Arthur R., Esq. ...	2	2	0
Becke, Major A. F. ...	1	1	0
Beeman, G. B., Esq. ...	2	2	0
Beeman, W. H., Esq. ...	0	10	6
Belmore, The Earl of ...	1	1	0
Bentzen, Prof. A.	1	1	0
Bethell, Miss M.	1	1	0
Bird, Rev. Richard ...	1	1	0
Blair, Capt. D. P.	1	1	0
Blomberg, Gustav, Esq. ...	1	1	0
Bodding, Rev. P. O. ...	1	1	0
Boulton, W. H., Esq. ...	1	1	0
Bramwell, W., Esq. ...	1	1	0
Brian, Miss E. O.	1	0	2
Bristow, Ernest, Esq. ...	1	1	0
Brown, Mrs. Hargreaves ...	1	1	0
Brown, James, Esq., Jr. ...	2	2	0
Burdon, Rev. R. J. ...	1	1	0
Busck, A., Esq.	1	1	0
Bushell, W. F., Esq. ...	1	1	0
Buxton, Dr. P. A.	1	1	0
Byrchimore, Rev. J. ...	0	2	6
Cairns, Rev. Dr. W. T. ...	0	10	6
Campbell, Mrs. Lamont ...	1	1	0
Campion, James, Esq. ...	1	1	0
Carpenter, Rev. F. W. ...	0	10	6
Carried forward ...	£52	3	2

	£	s.	d.
Brought forward ...	52	3	2
Carr, Rev. D. W.	0	2	6
Catterson, S. M., Esq. ...	1	1	0
Chalmers-Hunt, D. R., Esq.	1	1	0
Christ Church, the Dean of	1	1	0
Christian, Dr. V.	1	1	0
Close, Sir Charles	2	2	0
Cobb, Sir Cyril	1	1	0
Cole, S. C., Esq.	2	2	0
Colville, E. F., Esq. ...	2	2	0
Compton, Rev. Canon W.	1	1	0
Cook, Prof. S. A. (Life) ...	26	5	0
Cooke, Rev. Prof. G. A. ...	0	10	6
Coullie, Lt.-Col. A. G. ...	1	1	0
Crace, Mrs.	2	2	0
Crace, J. F., Esq.	1	1	0
Crawford, L., Esq.	1	1	0
Crawford, O. G. S., Esq. ...	1	1	0
Crowfoot, J. W., Esq. ...	1	1	0
Curson, Miss D. L.	1	1	0
Curwen, B. H., Esq. ...	1	1	0
Curwen, Dr. E. Cecil ...	1	1	0
Curwen, Dr. Elliot	2	2	0
Daniels, Miss	0	2	6
Davies, Miss A. M.	1	1	0
Deacon, J. F. W., Esq. ...	2	2	0
Deedes, Mrs. C. N.	1	1	0
Dirk, Pons & Co., Messrs.	1	1	0
Dixon, Rev. H. L.	1	1	0
Dolton, P. H. I., Esq. ...	2	2	0
Doust, S. P., Esq.	1	1	0
Dowling, Miss F. H. ...	1	1	0
Driver, G. H., Esq. ...	0	19	11
Driver, G. R., Esq. ...	2	2	0
Du Boulay, Brig.-Gen. W. H.	1	1	0
Dugmore, Rev. C. W. ...	1	1	0
Dulau, Mons. P.	1	1	0
Dyson, Rev. Fr. Robert A.	1	1	0
Edwards, Rev. A. H. ...	2	2	0
Edwards, Dr. R. C. ...	2	2	0
Edwards, W. C., Esq. ...	1	1	0
Elliger, Prof. Carl	1	1	0
Elliot, Miss Joan	1	1	0
Elmslie, Rev. Prof. W. A.	1	1	0
Elsdon, Miss	1	1	0
Elverson, Miss A.	0	3	6
Carried forward ...£	131	16	1

	£	s.	d.
Brought forward ...	131	16	1
Evans, E. M. P., Esq. ...	1	1	0
Falconer, Harold, Esq. ...	1	1	0
Farmar, Miss	2	0	0
Finn, Miss	1	1	0
Firminger, Rev. Dr. W. ...	1	1	0
FitzGerald, G. M., Esq. ...	2	2	0
Fleming, Andrew, Esq. ...	2	2	0
Fothergill, Dr. Claud ...	1	1	0
Fox, Lady	1	1	0
Frank, Miss	1	1	0
Franklin, A. E., Esq. ...	1	1	0
Fraser, C. J., Esq.	1	1	0
Fremlin, Frank, Esq. ...	5	0	0
Freshfield, The Misses ...	1	1	0
Frost, F. H., Esq.	1	1	0
Fry, Sir Frederick	1	1	0
Gabriel, J. W. W., Esq. ...	2	0	0
Gamble, Rev. H. J. ...	1	1	0
Gampert, Prof. A.	0	10	6
Gardiner, Dr. A. H. ...	2	2	0
Gardner, Miss Helen ...	1	1	0
Garner, Rev. H.	1	1	0
Garnett, Rev. T. A. ...	1	1	0
Garstang, Prof. J.	5	5	0
Gentle-Cackett, Rev. S. W.	1	1	0
Gerold & Co., Messrs. ...	1	1	0
Gerstley, Mrs.	2	2	0
Gibson, Mrs.	2	2	0
Gibson, David J., Esq. ...	0	19	11
Gilbert, F. C., Esq. ...	1	1	0
Goadby, F. M., Esq. ...	1	1	0
Goodenough, Admiral Sir W.	1	1	0
Gold, Mrs.	1	1	0
Gordon, H. S., Esq. ...	1	1	0
Gray, Melville, Esq. ...	1	0	0
Greenwood, H. D., Esq. ...	1	1	0
Griffin, Dr. F. W. W. ...	0	10	6
Griffin, H. J. S., Esq. ...	1	1	0
Griffith, Mrs. F. Ll. ...	1	1	0
Guerrier, Rev. J. W. ...	2	2	0
Gurney, Oliver R., Esq. ...	1	1	0
Hall, T. Walter, Esq. ...	1	1	0
Hammond, Col. F. S. ...	2	2	0
Hammond, Rev. F. H. ...	1	1	0
Hardman, L. H., Esq. ...	1	1	0
Harrison, Miss W. A. ...	0	10	6
Harvey, Rev. J. H. ...	1	1	0
Harvie, Mrs.	1	1	0
Hay, Major A. E.	1	1	0
Haycraft, Sir Thomas ...	1	1	0
Haycraft, Lady	1	1	0
Healy, Archdn. J. W. ...	1	1	0
Heath, Rev. Alban ...	1	1	0
Henderson, Sir W.	3	3	0
Heron, Miss Helen	1	1	0
Hertz, Very Rev. J. H. ...	2	2	0
Hewetson, Rev. J.	2	2	0
Hiersemann, K. W., Esq. ...	2	2	0
Hilion, Prof. G.	1	1	0
Hill, Miss E.	0	10	0
Hindle, Robert, Esq. ...	1	1	0
Carried forward ...	£216	5	6

	£	s.	d.
Brought forward ...	216	5	6
Hippisley, Miss E.	1	1	0
Hobson, Mrs. M. A. ...	1	1	0
Hodgetts, Miss M. Chambers	1	1	0
Hodgkin, Miss A. M. ...	1	1	0
Hodgson, Miss H. L. ...	0	10	0
Hollis, Miss E. S.	1	1	0
Hollis, Rev. Dr. F. J. ...	1	1	0
Hooke, Prof. S. H.	2	2	0
Hope, The Misses	2	2	0
Horn, Siegfried, Esq. ...	1	1	0
Houtsma, Prof. D. M. ...	0	10	6
Howlett, C. E., Esq. ...	1	1	0
Hulbert-Powell, Canon C. L.	2	2	0
Hull, Rev. E. R. S. J. ...	1	1	0
Hunter, Miss M. V. ...	1	1	0
Huntley, J. R., Esq. ...	0	5	0
Hutton, Rev. W. R. ...	3	7	3
H. W. J.	1	1	0
Hyamson, A. M., Esq. ...	1	1	0
Hyde, Sir Charles	2	2	0
Hyvernat, Prof. H. ...	0	19	11
Inglis, Rev. J. W.	1	1	0
Jack, Rev. Dr. J. W. ...	1	1	0
Jackson, Lady	2	2	0
de Jarnac, Rev. R. ...	1	1	0
Jersey, The Dean of ...	1	1	0
Johnson, Mrs.	2	2	0
Johnson, Mrs. M.	1	1	0
Johnson, Rev. Lewis ...	1	1	0
Jones, Rev. Canon R. C. S.	1	1	0
Jones, W. Rowlatt, Esq. ...	1	1	0
Julian, Mrs. M. B.	1	1	0
Karadja, H.H. Princess Despina	1	1	0
Kelly, Prof. F. T.	1	0	4
Kenyon, Sir Frederic ...	1	1	0
Kimber, Rev. J. S. ...	1	0	0
King, Miss A. J.	1	1	0
Kip, A. L., Esq.	0	9	10
Kirkpatrick, Rev. Dr. ...	1	1	0
de Knevett, Edgar, Esq. ...	1	1	0
Kraeling, Prof. E. G. ...	2	1	11
Ladson, C. A., Esq. ...	1	1	0
Lake, E. Coote, Esq. ...	1	1	0
Langworthy, Mrs.	1	1	0
La Page, John, Esq. ...	1	1	0
Larsen, Rev. Canon H. L.	1	2	0
Laxon, Sidney, Esq. ...	1	1	0
Lee, Rev. E. J.	0	10	6
Lee of Fareham, Lord ...	4	4	0
Lees, G. M., Esq.	1	1	0
Lees, Rev. R.	3	3	0
Levett, Rev. T. P.	1	1	0
Levie, Prof. Jean	1	1	0
Libraries—			
Aberdeen Public Library	0	10	6
Adelaide Public Library	1	1	0
Allegheny College ...	0	10	6
Alleyn's School	3	3	0
Carried forward ...	£289	0	9

	£	s.	d.
Brought forward ...	289	0	9
American Academy, Rome	1	1	0
American Philosophical Society	1	1	0
American Univ. Beirut ...	1	1	0
Amherst College	1	1	0
Amsterdam University ...	1	1	0
Armagh Library	1	1	0
Ashmolean Museum ...	1	1	0
Basel University ...	1	1	0
Bavarian State Library	3	3	0
Berkeley Bap. Div. School	1	1	0
Birmingham Public Libraries	1	1	0
B'nai B'rith, Order of ...	1	1	0
Boston Public Library ...	1	1	0
Bradford City Library ...	0	10	6
Bristol Public Libraries	1	1	0
British Columbia, Union College of	1	1	0
Brown University ...	1	1	0
Bucknell Library ...	0	10	6
Cairo Service des Antiquités	1	1	0
California University ...	0	10	6
Cambridge Museum of Archæology and Ethnology	5	0	0
Carnegie Library, Pittsburg	0	10	6
Chicago Oriental Institute, Luxor	1	1	0
Chicago University ...	1	1	0
Church House, Westminster	0	10	6
Colgate-Rochester Divinity School	1	1	0
Colgate University ...	4	4	6
Cone Memorial Y.M.C.A.	1	1	1
Copenhagen Royal Library	2	2	0
Cornell University (2 subs.)	2	2	0
Davidson College ...	1	1	0
Doshisha Theol. School ...	1	1	0
Duke University ...	1	1	0
Durham University ...	4	4	0
Edinburgh University ...	2	2	0
Emmanuel Missionary College	2	2	0
Eton College Library ...	3	3	0
General Theol. Seminary	3	1	2
Greifswald Palastina Institut	2	2	0
Hackney and New College	1	1	0
Hague University ...	2	2	0
Hamburg University ...	1	1	0
Harvard College	1	1	0
Haverford College ...	1	1	0
Hebrew Union College ...	1	0	9
Hull Public Libraries ...	1	1	0
Ignatius College	1	1	0
Illinois University ...	1	1	0
Innsbruck Biblische Seminar	1	1	0
Institut de France ...	1	1	0
Jewish Institute of Religion	1	1	0
Carried forward ...	£362	14	9

	£	s.	d.
Brought forward ...	362	14	9
Jewish Memorial Council	2	2	0
Jewish Theol. Seminary	1	1	0
Jews College	0	10	6
John Rylands Library ...	1	1	0
Königsberg State Library	1	1	0
Lancaster Theol. Seminary	2	0	8
Leeds Library	2	2	0
Liverpool Diocesan Church House	0	10	6
Lobl Literarische Anstalt	1	1	0
London University Lib.	1	1	0
Los Angeles Public Library	1	1	0
Lund University ...	1	1	0
McMaster University ...	1	1	0
Manchester College, Oxford	2	2	0
Manchester University ...	1	1	0
Mansfield College ...	1	1	0
Mary Baldwin College ...	1	1	0
Metropolitan Museum of Art	1	1	0
Michigan University ...	2	2	0
Milligan College	1	1	0
Minneapolis Athenæum	2	2	0
Montreal Theological Col.	2	6	0
Moody Bible Institute ...	1	1	0
Mount Hoylake College ...	2	2	0
Newberry Library ...	1	1	0
New York Public Library	1	1	0
North Wales University	1	1	0
Northwestern University	1	1	0
Oberlin College	1	1	0
Ottawa Parliament Liby.	1	1	0
Pacific School of Religion	1	0	0
Paris, Bibliothéque Nationale	1	1	0
Peabody Institute ...	1	1	0
Pretoria University ...	0	10	6
Princeton Theol. Seminary	1	0	0
Prussian State Library ...	1	1	0
Richmond College ...	1	1	0
Royal Asiatic Society ...	1	1	0
St. Andrews University	1	1	0
St. Deiniol's Library ...	1	10	0
St. Louis Public Library	1	1	0
St. Patrick's College ...	1	1	0
Selly Oak Colleges ...	2	2	0
Smith College	1	0	4
Sorbonne University ...	1	1	0
South Africa Public Library	1	1	0
S. Baptist Theol. Semin.	1	0	4
Spence Library	1	1	0
Sydney Public Library ...	1	1	0
Strassburg University ...	1	1	0
Texas Christian University	2	2	0
Toronto, Victoria University	2	2	0
Union Theol. Seminary ...	1	1	0
Ushaw College	1	1	0
Vaughan Library ...	0	10	6
Carried forward ...	£430	7	1

	£	s.	d.
Brought forward ...	430	7	1
Victoria Institute ...	1	1	0
Victoria Public Library	1	1	0
Weston-super-Mare Library	2	2	0
Dr. Williams Library ...	2	2	0
Wisconsin University ...	1	1	0
Yale University	1	1	0
Zion Research Library ...	1	1	0
Zionist Organization ...	2	2	0
Linton, Rev. Hugh ...	1	1	0
Lombe, Mrs.	1	1	0
Lowis, Rev. Dr. D. W. ...	1	1	0
Lowis, N., Esq.	1	1	0
Luckock, Rev. Canon A. M.	1	1	0
Luke, Sir Harry	1	1	0
Luzzatto, Mme. Elisabeth	0	19	0
Macalister, Prof. R. A. S. ...	1	1	0
McClellan, Rev. W. H. ...	1	0	11
McClintock, Mrs.	1	1	0
Macdonogh, Gen. Sir George	1	1	0
MacGregor, Rev. W. ...	2	2	0
Mackintosh, Miss C. E. ...	1	1	0
McLean, Dr. C. F.	1	1	0
McLean, Norman, Esq. ...	2	2	0
Manwaring, G. F., Esq. ...	1	1	0
Margoliouth, Prof. D. S. ...	0	10	6
Marriott, Rev. F.	1	1	0
Masterman, Dr. E. W. G. ...	1	1	0
Mathieson, George, Esq. ...	10	0	0
Mayer & Comp., Messrs. ...	1	1	0
Mills, Col. D. A.	2	2	0
Mills, Miss E. M.	2	2	0
Mitchell, Mrs. C. D. (Life)	26	5	0
Mitchell, Mrs. J. Malcolm ...	2	2	0
Moberg, Prof. C. A. ...	1	1	0
Mond, Sir Robert	10	0	0
Mond, Sir Robert (donation)	10	0	0
Money, R. J., Esq. ...	1	1	0
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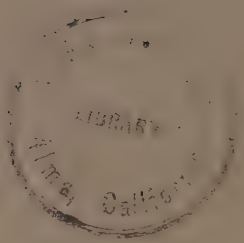

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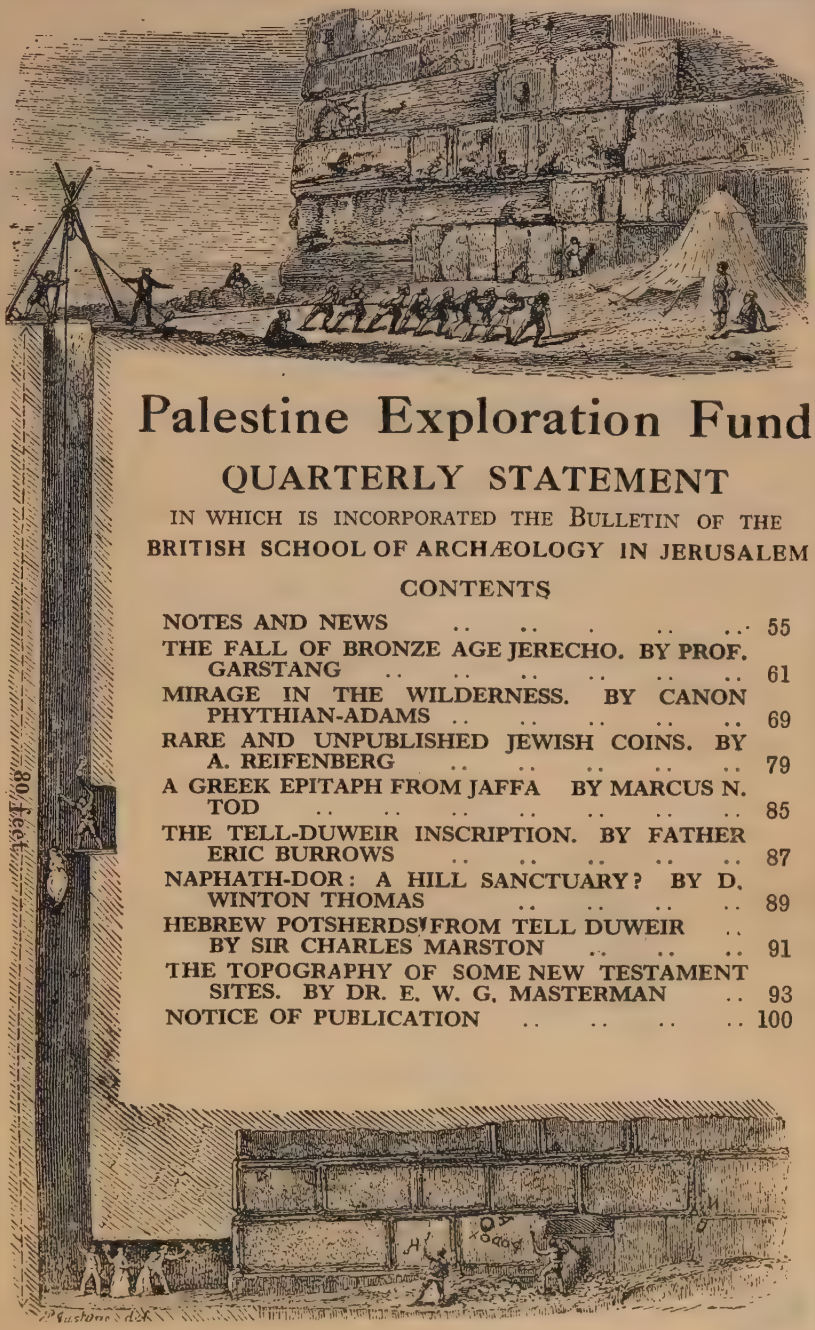

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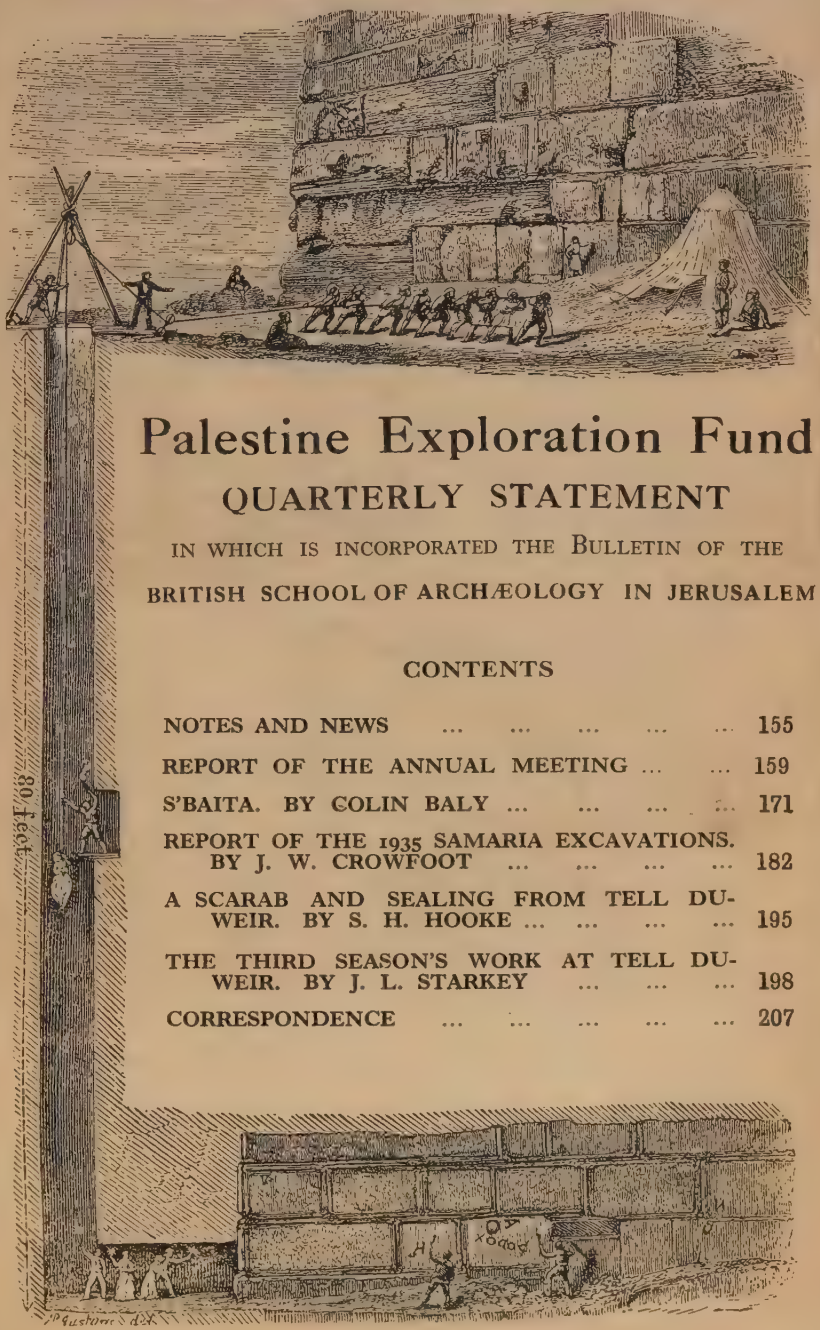

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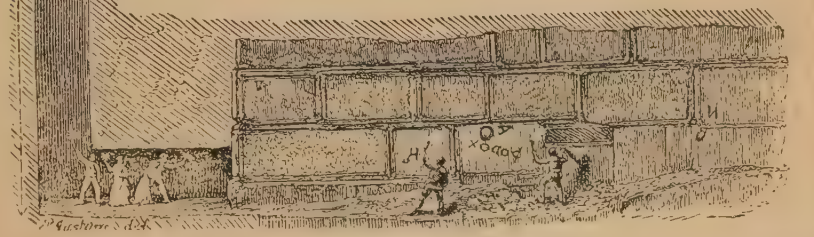

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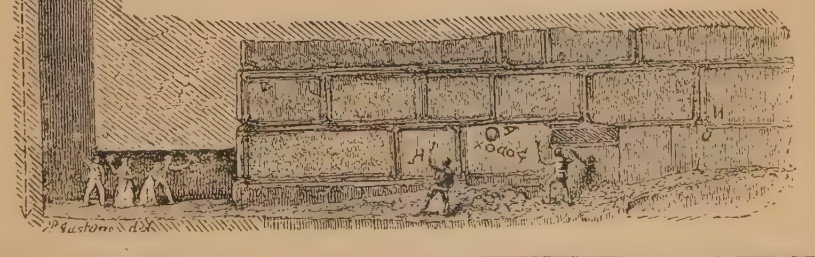

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